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AJ Bisesi

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PROMOTING AN EQUITABLE EATING-OUT FOOD ENVIRONMENT THROUGH THE  
APPLICATION OF A FOOD JUSTICE FRAME: A CASE STUDY

A Thesis

Submitted to the McAnulty College and Graduate School of Liberal Arts

Duquesne University

In partial fulfillment of the requirements for  
the degree of Master of Arts

By

AJ Bisesi

December 2015



PROMOTING AN EQUITABLE EATING-OUT FOOD ENVIRONMENT THROUGH THE  
APPLICATION OF A FOOD JUSTICE FRAME: A CASE STUDY

By

AJ Bisesi

Approved November 12, 2015

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Michael Irwin, Ph.D.  
Associate Professor  
Department of Sociology

---

Moni McIntyre, Ph.D.  
Assistant Professor  
Department of Sociology

---

James Swindal, Ph.D., Dean  
McAnulty College and Graduate  
School of Liberal Arts

---

Michael Irwin, Ph.D., Director  
Graduate Center for Social and Public Policy

## ABSTRACT

### PROMOTING AN EQUITABLE EATING-OUT FOOD ENVIRONMENT THROUGH THE APPLICATION OF A FOOD JUSTICE FRAME: A CASE STUDY

By

AJ Bisesi

December 2015

Dissertation supervised by Dr. Michael Irwin

This case study examines the effectiveness of developing and applying a “food justice frame” as a mobilization tool to promote an equitable Eating-out Food Environment (EOFE) in an urban neighborhood of Pittsburgh. A mixed-methods approach was taken to gather material and perception data, culminating in a community action meeting to generate interventions. Findings show that a five-dimensional definition of access is appropriate and effective. The dimensions of accessibility and affordability were less important factors of eating-out behavior (EOB) than the other three dimensions (availability, acceptability, accommodation). Findings also show that the methods used addressed the concerns of both food access and food sovereignty, which are the primary components of the Food Justice Movement (FJM). Additionally, an effective food justice frame was organically realized through the research process. This frame cradled the community action meeting, equalizing various forms of power,

generating acceptable and desirable interventions, and empowering participants to take ownership over their EOFE.

## ACKNOWLEDGEMENT

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## LIST OF ABBREVIATIONS

AFM: Alternative Food Movement

EOB: Eating-out Behavior

EOFE: Eating-out Food Environment

FJM: Food Justice Movement

## **Introduction**

Inequitable food environments are associated with consumer dissatisfaction, which has been found to impact negatively a community's health, economy, and social justice (Leib, 2013). Conceivably then, the promotion of equitable food environments can increase consumer satisfaction and mitigate these negative outcomes. The pivotal question researchers and policy-makers must ask themselves is: how does one best promote equitable food environments? The purpose of this research project was to test out the application of a "food justice frame" as a method of promoting an equitable food environment.

### **Public health, economy and food environments**

The phrase "food environment" was a relatively obscure one only a few years ago, but it has now saturated political vernacular. There has not yet been an accepted standard definition of food environments; however, it is generally agreed that food environments include *any* and *all* factors that influence consumers' food access and food choice. These factors range from straightforward, such as disposable income, to incredibly complex, such as the Farm Bill (USDA, 2014, Agricultural Act); from the generally innocuous, such as sidewalk maintenance, to the sticky and charged, such as Supplemental Nutrition Assistance Program (formerly food stamps) (USDA, 2014, SNAP). There are almost an endless number of dimensions that could be attributed to food environments. Certain dimensions have played a central role in research and, subsequently, policies. These dimensions will be further discussed later.

Food environments have become a hot topic on political agendas because research has shown correlations between food environments and obesity and other diet-related diseases. Hunger, obesity, and diet-related diseases are national public health concerns. Policy-makers are turning to food environments to look for solutions to these three public health problems because there is strong evidence that inequitable food environments detrimentally affect their respective

communities and the residents in those communities. Lieb (2013) found that inequitable food environments create barriers to consumer choice and consumer satisfaction, and negatively impact the health, economy, and social justice of communities. From a public health perspective then, improving equity will directly and indirectly address the issues of diet-related diseases.

Further, researchers started highlighting the significant cost of these public health issues (Shepard, Seton, & Cooper, 2011). The estimated cost of diabetes in 2012 was \$245 billion, a 40% increase over the preceding five-year period. Well over half of these costs, 62.4%, are from government-funded programs, ie taxpayer dollars (ADA, 2013). According to an analysis by *The Fiscal Times*, the annual cost of obesity in the US is \$305.1 billion, with 30% of those costs being funded by government programs (Pianin, 2014). Inequitable food environments are costing American taxpayers billions of dollars. In response to these findings, policy makers started generating and implementing interventions—largely focused on consumer responsibility—to target these issues. It has been a largely unsuccessful battle. In fact, even with all the research and resources that have gone into addressing this issue, rates of obesity and diabetes have remained alarmingly high (SOO, 2015).

The inadequacy of present policies to improve these public health issues has encouraged policy-makers to broaden their outlook for devising solutions. They lifted their eyes off the consumer, took a step back, and saw an intricate system. Policymakers' focus stopped being solely on the consumer; instead, they incorporated the surrounding environment that the consumer lived in, which was their food environment. They saw glaring systemic inequities, and this led to a shift in responsibility. Instead of holding the consumer solely responsible for eating behavior, policy-makers started holding the food environment responsible as well. In order to successfully address the public health issues of obesity, diabetes, and other diet-related diseases,

policy-makers understood that they must implement interventions that target inequities in food environments.

We again visit the question: how does one best promote equitable food environments? A clear answer is through good policy; however, that is not a complete answer. Policy is informed by research and research is guided by theory.

## **A Tale of Two Movements**

### **Alternative Food Movement**

The Alternative Food Movement (AFM) is not new to the United States; however, it is not without criticisms. Critics argue that its biased focus on localism and consumer choice stems from white, middle-class values and that AFM's approach ignores larger problems, such as systemic inequities and inequalities in the food system (Sbicca, 2012). As such, AFM puts the locus of responsibility on the consumer. The responses of Community Supported Agriculture (CSA) managers in the Guthman (2008) study evidence this. When asked why “primarily European-American people...participate in CSAs? Respondents consistently imputed personal characteristics and motives rather than structural problems with access and affordability...phrases such as ‘better education,’ ‘more concern about food quality,’ ‘more health consciousness’” (p. 393). Research conducted within this approach's framework generally capitalizes on material data and limited definitions of access, often resulting in inconclusive findings. The resultant policies—such popular interventions stemming from AFM as community gardens, local farm stands, and nutrition education—were not nearly as effective as policy-makers hoped. Further, instead of promoting equity in the food environment, they sometimes deepened existing inequities or created new ones, as the “interests and experiences of disadvantaged populations tend to be overlooked or subordinated in the press of local food

system efforts prioritizing improvements in economic viability and environmental sustainability” (Hinrichs & Allen, 2008, p. 333).

### **Food Justice Movement**

The perceived inadequacies of AFM gave rise to a new food movement grounded in “food justice.” Though the newness of the Food Justice Movement (FJM) has so far prevented any standard definition, Kato (2013) explains that its driving purpose is “to ameliorate the unequal access to food within the current system, which not only reflects structural inequality but also perpetuates it” (p. 370). Instead of putting the onus on the consumer, FJM puts the onus on the food system, approaching the issue from a social justice perspective. This perspective can include consumer choice and local solutions, but it often looks to policy changes and macro-level interventions in the belief that positive change will only be sustainable if applied at a system level and applied within a framework that is relevant and acceptable to the people it is affecting.

The two principles integral to FJM are food access and food sovereignty (Kato, 2013). *Food access* is best understood as the production and distribution of food. *Food sovereignty* is a looser concept, but it is linked with consumer sovereignty and autonomy within the food system (Alkon & Agyeman, 2011). Food sovereignty pays attention to the historical, social, economic, and cultural context of the community it is working in. Thus far research and interventions have largely focused on food access; food sovereignty has played a minimal part in the discourse. FJM seeks to change this. Also important to FJM is a “food justice frame,” which acts as a mobilization tool. An effective frame is intricately tied to the community, thus resonating with community members (Sbicca, 2012). This is in stark contrast to the disconnect that often results from an AFM approach, where the values and culture of the people it is targeting are often very different from the values and culture that informed the intervention affecting those people. Kato

(2013) provides a telling example. In doing a case study on a community-supported agriculture urban farm in New Orleans, Kato remarks that because of “the heightened awareness of racial inequality” in the city, AFM could further “exacerbate” the existing social inequality, whereas FJM would find “fertile ground” for positive and sustainable change. Research conducted within a FJM framework is showing much stronger findings, which is promising in terms of policy.

To answer our question then, it appears that conducting research through an FJM lens is the key to promoting an equitable food environment. This is what this study sought to do. Drawing from these principles, the researcher used a food justice approach. A food justice approach is a pragmatic approach that first identifies and then mobilizes against inequities present in food access and food sovereignty at all system levels. Food justice approaches often use mixed methods, with a heavy focus on qualitative methods, to generate the “food justice frame” from which solutions will arise. Using a food justice approach will not only help prevent the development of harmful interventions, but it will also result in more successful and sustainable solutions. Additional reasons for using this approach are given in the methods section.

### **Food Environments and Literature**

Heightened attention to food environments is reflected in the rise in food environment literature, which concurrently contributes to heightened attention in the public. Historically, food environment literature seeks primarily to measure correlations between access and diet as an explanation of and prediction of food purchasing behavior. A lack of strong findings has led to a shift in the focus, not necessarily in goal but in how those variables are operationalized and measured. Before turning our attention to access, it is important to note the definitions of and distinctions between *material* data and *perception* data.

## **Material data vs. perception data**

In food environment literature, there are two categories of data represented: material data and perception data. Both types of data are used to assess the food environment and consumers' food purchasing behavior. Material data refers to the physical realities of the geographic unit of analysis, whereas perception data refers to the feelings and opinions of the individual(s)/group(s). Even though consumers' perceptions are getting significant attention in recent literature, especially since the limited number of studies that have measured perceptions has found strong correlations between perceptions and food purchasing behavior (Leib, 2013; Christiansen, Qureshi, Schaible, Park, & Gittelsogn, 2013; Ma et al., 2013), the former dominates the literature. Further, much of the literature looking at food environments, and specifically access, only examines one category of data to the exclusion of the other; the resultant incomplete picture is problematic for multiple reasons.

One of the most significant problems resulting from these gaps in findings is the one-sided view it provides to policy-makers in developing and implementing interventions to help correct existing inequities in food environments. Measuring distance, as it relates to access, provides a salient example. The USDA generally defines reasonable walking distance as .5 miles (USDA, Food, 2013). This measurement has informed current definitions of food deserts, which in turn affects allocation of funds for regional interventions related to food environments. This physical definition of distance, however, does not capture socio-demographic characteristics and consumer perception. On a flat map, a half-mile distance to a food retailer may seem reasonable, but if that walk includes multiple traffic lights, perceived unsafety, or a big hill, then that distance becomes less reasonable. Caspi, Sorensen, Subramanian, & Kawachi (2012), upon a systematic review of literature on the relationship

between food environment and diet, found that studies that use only physical measurements to assess the relationship between distance and diet result heavily in mixed results.

A newer approach, “social distance,” which includes physical data, socio-demographic characteristics, and consumer perception, has been found to be much more indicative of food purchasing behavior than physical distance alone (Leib, 2013; Caspi et al., 2012; Hearst, Pasch, & Laska, 2012; Penchansky & Thomas, 1981; Laska, Graham, Mow, & Van Riper, 2010). In measuring the relationship between food retail accessibility and adolescent purchasing of fast food/sugar-sweetened beverages (SSB), Hearst et al. (2012) included “social distance” factors, such as perceived safety and presence of sidewalks. They found a negative association between purchase of SSB and perceived amount of travel time. They also found a positive association between adolescent purchasing of SSB and food retail density and physical distance to food retail. By using social distance instead of strictly physical distance, Hearst et al. (2012) were able to present more comprehensive findings, which can better inform policy. Baltimore’s local definition of food deserts provides an example of policy change that resulted from a more comprehensive measurement of access. Instead of adopting the USDA’s definition of a food desert (which is based on two factors), Baltimore took the initiative to create a local definition using four factors. The findings led Baltimore to use a measurement of one-quarter mile, as opposed to USDA’s recommended measurement of one mile, in their local definition. This change better suited the unique needs of their local community (Leib, 2013).

## **Access**

There is no standard definition of access, and this lack of definition has weakened the food environment body of literature. The predominant definition of access is operationalized in terms of availability and distance. The measurements of these fall under the material data



category, as outlined previously, in which some of the problems in exclusively using this data category are also highlighted. Emerging literature is generally going in two directions: measuring these two dimensions of access from a perception data perspective or operationalizing access in a different way. Both generally lead to stronger findings than studies that use material data to measure the traditional two-dimensional definition of access.

In studying the relationship between women's diets and the food environment, Inglis, Ball, & Crawford (2008) measure access using perception data and breakdown access into three dimensions—availability, accessibility, and affordability. Hearst et al. (2010) adhere to the traditional two-dimensional definition of access when measuring the relationship between food environment and teen food purchasing but use both perception data and material data. Lamichhane, Mayer-Davie, Puett, Bottai, Porter et al. (2012), in seeking a relationship between the food environment and diets of youth with diabetes, use only material data to measure the traditional two-dimensional definition of access; however, they further breakdown availability and accessibility (distance) into five dimensions each. These studies all had strong findings to report. The rising popularity of using multi-dimensional definitions of access is becoming more evident as food environment literature continues to emerge; studies that operationalize access in a more comprehensive way and studies that draw on perception data tend to result in stronger findings.

Food environment literature is not only characterized by a limited and vague definition of access, but also this literature further narrows its focus within that definition of access by primarily concentrating on access to fresh produce. This makes sense in the context of obesity and diet-related diseases in our culture. These public health issues, strongly tied to hunger, are overrepresented in low-income minority groups (Larson et al., 2009). Neighborhoods composed

primarily of these demographics were characterized as having more food retailers that carry only convenient food (convenience stores, gas stations, and corner stores) and fewer food retailers that carry fresh produce (full grocery stores, farmer's markets) (Bell et al., 2013). The prevailing thought was that an increase of availability of fresh produce in these neighborhoods would make them more accessible and, therefore, increase their inclusion in residents' daily diets. This assumption drove the direction of research, which in turn guided the direction of policies and interventions.

Availability of fresh produce, however, is not going to address fully the issues of hunger, obesity, and diet-related diseases. There are multiple reasons for this. The two that are most relevant to this study are: 1) fresh produce only accounts for a small percentage of energy intake in consumers; 2) availability of a resource does not necessitate use. Both of these will be further discussed. Research is needed on other areas of the food environment so that policy will likewise respond and be more effective in combating these public health issues. One of those areas is the role of eating-out.

### **The Role of Eating Out**

Eating out has increased substantially over the past few decades (Serrano & Jedda, 2009; Christiansen, Qureshi, Schaible, Park, & Gittelsohn, 2013; Fraser, Edwards, Cade, & Clarke, 2012; Laska et al., 2010) but has been largely ignored in food environment literature. This needs to change. Eating-out counts for a significant percentage of energy intake in consumers. Its role in the diets of consumers carries important implications for policy-makers to consider when developing strategies to target hunger, obesity, and diet-related diseases. By including eating-out in research and resulting policy-making frameworks, policy-makers will strengthen their anti-hunger and healthy-living efforts.

Eating-out is not completely absent from food environment literature. There have been studies that look at the relationship between fast-food retailer availability and diet; corner store availability and diet; perception of food environment and diet. The studies that have looked at eating-out have resulted in mixed findings. This is primarily due to three reasons: the lack of a standard definition of access, the overreliance on material data, and the lack of a standard definition of eating-out. The first two have been previously discussed; the latter is problematic for reasons similar to the problems of not having a standard definition of access. Nago, Lachat, Dossa, & Kolsteren (2014) performed a systematic review of studies that measured out-of-home eating. They cited the lack of a standard definition of out-of-home eating as a major hindrance in comparing the findings of the studies. In order to test reliability of findings, a standardized definition is needed. Similar to the definitions of access as well, many studies used only a one or two-dimensional definition of eating-out. These three factors, further explained in the following paragraphs, contribute to the gaps found in food environment literature focused on eating-out.

Fraser, Edwards, Cade, & Clarke (2010) rightly argue that the majority of eating-out studies only include fast food outlets; they exclude other food retailers that offer prepared food. Not only do these studies offer an incomplete picture of EOFE, but they also take no account of consumer choice (Fraser et al., 2010). Further, few have looked at consumers' perceptions of the factors that influence their eating-out behaviors, looking only at material data, such as physical distance or availability. Caspi et al. (2012) conclude that most associations between fast food availability and diet are weak. It is relevant to note that the bulk of the studies included in their review relied solely on material data when measuring access. Drawing correlations between physical access and food purchasing behavior is problematic because it makes assumptions that are not necessarily true. This pattern of weak correlations between

access and diet has prompted researchers to test some of the assumptions implicit in this material data approach. This is critical from a policy perspective. Assumptions bias research and research is often the basis for interventions or new policies. It is imperative, therefore, to continually test assumptions so that policies can be founded on accurate information. For example, one assumption is that consumers are aware of what is available in their neighborhood; however, Ma et al. (2013) note that residents were unaware of certain smaller grocery stores and corner stores in their neighborhood. Availability does not necessarily predict awareness.

Another assumption is that food purchasing happens within a certain buffer distance of someone's residence. The USDA definition for reasonable distance to a food retailer is 1 mile in general, and .5 miles by walking. A common practice in studies measuring physical access to food retailers is to use a 1-mile buffer zone around the geographic area of analysis to generate that area's food environment. The rise in popularity of Geographic Information System (GIS) software has contributed to the heavy overuse of this buffer system. Many studies use GIS-defined boundaries, which are predetermined physical boundaries of the area of analysis, to set the physical limits for their study. These boundaries are software-generated measurements set by the determinations of the researcher. Multiple studies have contradicted that assumption by finding that significant purchasing may happen outside of those boundaries (Hearst et al., 2010; Munoz-Plaza et al., 2013; Laska et al., 2010). In fact, even with issues of limited mobility, Munoz-Plaza et al. (2013) found that older adults will purposely travel farther to get higher-quality food. Relying on GIS-defined boundaries leaves out significant food purchasing behavior.

A third assumption is that physical availability of food retailers is the driving motivator behind food-purchasing behavior. This assumption has been heavily challenged by more recent

studies. Availability is only one part of access (Penchansky & Thomas, 1981); studies that measure the acceptability and accommodation parts of access often find stronger positive associations than those measures that study the affordability and accessibility parts of access (Caspi et al., 2012; Munoz-Plaza et al., 2013; Hearts et al., 2010). These were two major reasons that studies started broadening their approach in measuring access, operationalizing access differently, and shifting the focus from physical access to consumers' perceptions and "social distance" as more accurate measures of food purchasing behavior.

The recent focus on consumers' perceptions has also debunked historically accepted assumptions surrounding food culture and low-income minorities. The largest assumptions in food environment literature center around food purchasing behavior and race and food purchasing behavior and socioeconomic position (SEP). Kato (2013) argues that food is strongly tied to cultural identity; however, differences in cultural identity do not necessarily mean differences in *factors* that influence food purchasing. Walker et al. (2011) found that there are minimal differences in perceptions between factors that influence food-purchasing behavior between African American and Caucasian participants. The assumption that SEP plays a heavy role in food purchasing behavior is challenged as well. Inglis et al. (2014) found that once they added in perceptions of environmental mediating factors, such as perceptions of food availability, accessibility and affordability, the association between SEP and diet became insignificant. They also found that the association between SEP and fast food intake became insignificant as well. These findings call into question two practices: drawing correlations between material data and food purchasing behaviors and drawing correlations between demographic characteristics and food purchasing behavior.

## **Purpose of Study**

The purpose of my study was to promote an equitable eating-out food environment (EOFE) through an FJM approach, therefore increasing consumer satisfaction. This was an action-orientated study; the goal was to develop practicable interventions through a “food justice frame” to improve Garfield’s EOFE. This was ultimately accomplished through an informed and action-oriented community discussion concerning the neighborhood’s EOFE, which agrees with the “participatory, inclusionary democratic processes” often associated with FJM (Sbicca, 2012, p. 462). To provide the tools and knowledge necessary for the community meeting, the study gathered data on consumers’ EOB and Garfield’s EOFE. The researcher was guided by FJM when choosing the methods of data collection and the types of data collected, keeping mindful of its principles of food access and food sovereignty.

For this study, “eating out” refers to any eating outside of the home, including take-out and delivery that occurs within the home, but excluding sharing a meal at a friend or family member’s home. This definition also includes snacks and beverages purchased at convenience stores, corner stores, or other stores that carry “on-the-go” snacks (such as Home Depot). The researcher included snacks and beverages because these constitute meals for many consumers and should therefore be included. The study assessed the socio-demographic characteristics of the neighborhoods, measured and visually depicted food retailers in the defined geographic area of analysis, gathered and analyzed the consumers’ perceptions of the local EOFE, explored consumers’ EOB, and, finally, provided an opportunity for a community response.

In the broadest sense, this study first measured access to prepared food. Much of the conflicting results of studies focused on food environments have resulted from a vague or incomplete definition of access; as mentioned previously, there has not been an accepted

universal definition. This study used Penchansky and Thomas' (1981) definition of access. They determined that five components—availability, accessibility, affordability, acceptability and accommodation—make up access. These five components are operationally defined and further broken down into dimensions. For this study, the researcher adopted the operational definitions; however, since the original study addressed access to health care, the researcher has adapted the components' dimensions to reflect more accurately access to food.

The complete definitions, taken from Penchansky and Thomas (1981) and accompanying dimensions follow:

**Availability** is defined as “the relationship of the volume and type of existing services (and resources) to the clients’ volume and types of needs” (p. 128). This is broken into two dimensions: 1a) (perceived) supply of food retailers, 2a) (perceived) diversity of food retailers.

**Accessibility** is defined as “the relationship between the location of supply and the location of clients” (p. 128). This is broken into four dimensions: 2a) (perceived) transportation options, 2b) (perceived) distance, 2c) cost of transportation, 2d) perceived convenience of food retailer location.

**Accommodation** is defined as “the relationship between the manner in which the supply resources are organized to accept clients and the clients’ ability to accommodate to these factors and the clients’ perception of their appropriateness” (p. 128). This is broken into four dimensions: 3a) hours of operation of food retailers, 3b) perceived convenience of shopping experience (store organization, length of lines, availability of shopping carts/baskets, etc), 3c) (perceived) forms of payment accepted, 3d) perception of food retailer staff.

**Affordability** is defined as “the relationship of prices of services” and goods “to the clients’ income” and “ability to pay” (p. 128). This is broken into three dimensions: 4a) perception of opportunity cost, 4b) “knowledge of prices,” 4c) knowledge of comparative prices.

**Acceptability** is defined as “the relationship of clients’ attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients” (p. 129). This is broken into three dimensions: 5a) perception of location of food retailer, 5b)

perception of other consumers who visit a certain food retailer, 5c) perception of physical space of a food retailer (cleanliness, presentation, etc).

There are three unique aspects of this study that set it apart from current literature: the integration of material data and perception data, the inclusion of multiple sources of food retailers in the EOFE and EOB analysis, and the use of a 5-dimensional definition of access. A few studies have drawn from both perception data and material data, such as Hearst et al. (2012); however they only looked at corner stores and only used a 2-dimensional definition of access. Inglis et al. (2008) used a three-dimensional definition of access and multiple sources of food retailers, but did not incorporate material data. Caspi et al. (2012) used a 5-dimensional definition of access, but used it only as a framework to compare studies in their comprehensive review of food environment literature. The use of all three of these characteristics is integral to this study, because of its goal of policy-making and interventions. The intersection of these three, combined with the collaboration between multiple stakeholders and a focus on community-driven responses and solutions, helped create a “‘food justice frame’ that resonated with the local community” and ensured the greatest possible feasibility and greatest possible acceptability of proposed interventions (Kato, 2013, p. 387). Further, though the data gathered and interventions developed will be unique to Garfield, the general process of this study can serve as a model for policy-makers to use when developing interventions for urban neighborhoods similar to Garfield in socio-demographic composition.

## **Methods**

### **Pilot Study**

The researcher first conducted a pilot study to test the four instruments to be used. The feedback and responses of the participants were used to modify and strengthen the instruments.



The researcher used convenience sampling to identify participants for the two focus groups. The total number of participants was seven. Only adults who lived in Garfield were recruited.

Participants were given an informed consent form when they arrived for the meeting.

#### *Data collection and analysis*

The researcher collaborated with the participants to modify and strengthen the instruments. Notes covering feedback about the instruments were taken but no other information was recorded. For her own benefit, the researcher wrote a summary that explained her thinking behind the modification process.

#### *Findings*

In response to the feedback, the researcher modified the wording on some questions, deleted or added some questions and changed the ranges of some of the answer scales.

#### **Food retailer analysis**

The researcher used ArcGIS Software 10.2 to map available food retailers offering prepared food, including those that offer snacks and beverages. Only food retailers located within pre-defined buffers are represented. Buffers are a “tool for proximity analysis” and “place an area around a given set of features (Gorr & Kurland, 2013, p. 313). They let you measure variables that occur within a given distance of a geographic unit of analysis. For this study, the researcher used the Buffer Tool to draw two sets of buffers, based on two different distances, around the Garfield neighborhood. These buffers represent Garfield’s EOFE according to the USDA’s “reasonable distance” definitions. The first set drawn was a .5 mile buffer, which is the USDA-defined buffer used to measure reasonable *walking* distance for food purchasing in an urban city, and the second set drawn was a 1 mile buffer, which is the USDA-defined buffer used to measure reasonable *vehicle* distance for food purchasing in an urban city.

Within these two buffers, there are two subsets: one buffer based on the centroid of the neighborhood and one based on the perimeter of the neighborhood. Centroids are the geographic center of a given area and are calculated based on the coordinates of a polygon (Gorr & Kurland, 2013). These subsets were used in order to capture all residents within the Garfield neighborhood, since those living near the centroid have a different level of access than those living near the perimeter. There are therefore four buffers depicted on the food retailer map.

The researcher also recorded the category of food retailer (grocery, bar, fast food restaurant, sit-down restaurant, gas station, corner/convenience store, pizza shop, other) and applied a cost index. The cost index was based on Yelp's (an online crowd-sourcing site that lists food retailers among other businesses) cost scale<sup>1</sup>, where Level 1 is equivalent to their "\$" rating, Level 2 to their "\$\$" rating, and so on (Yelp, 2015). The researcher first gathered information on food retailers from Google Maps and Yelp. Afterwards, the researcher ground truthed the data. Ground truthing is a research method that involves verifying, often through physical means, computer-generated data (Steinberg & Steinberg, 2006). Larson et al. (2009) recommend ground truthing as a way to improve the validity and reliability of data. For this study, the researcher physically visited or called food retailers in order to verify the computer-generated data.

Information relating to transportation was also included in the food retailer analysis. Transportation has been found to be a primary barrier to food access, and multiple studies have suggested that future research look more heavily at the role of transportation in the broad area of food access (Bell, Mora, Hagan, Rubin, & Karpyn, 2013; Leib, 2013; Christiansen et al., 2013; Walker, Fryer, Butler, Keane, Kriska, & Burke, 2011; Munoz-Plaza et al., 2013). The researcher

<sup>1</sup> Yelp.com's cost scale (indicated by number of "\$" signs) calculates average cost/person, which includes meal plus one drink plus tax plus tip. "S" = \$10 or less; "SS" = \$11-30; "\$\$\$" = \$31-60; "\$\$\$\$" = \$61+.

looked into transportation options/conditions: car transport (availability, distance, and driving time); public busing (availability, frequency, distance, price, waiting time, time on bus, walking time); walking (distance, topography, sidewalk conditions, street safety). For this component of the study, the researcher sought the *real* measurements of transportation, not consumers' perceptions of transportation (which are included in other components of the study). The researcher also used internet sources, Google Maps (an online mapping tool), and personal experience to gather transportation information.

As mentioned previously, there have been problems with using GIS-defined borders to measure food access. In recognition of that, the researcher used GIS simply as a measure to put together a complete picture of the available food retailers in the given boundaries, *not* for the purpose of drawing correlations between diet and access. The researcher shared this spatial information with community members during the community meeting so that they had a better understanding of the scope of their EOFE. Studies have pointed out that consumers' perceptions may disagree with the food environment reality; the researcher sought to reconcile partially these two important facets because a greater understanding of the local food environment can help inform intervention and policy recommendations. A greater understanding of the food environment can also empower consumers by enabling them to recognize and increase their purchasing power, autonomy, and sovereignty over the food they purchase.

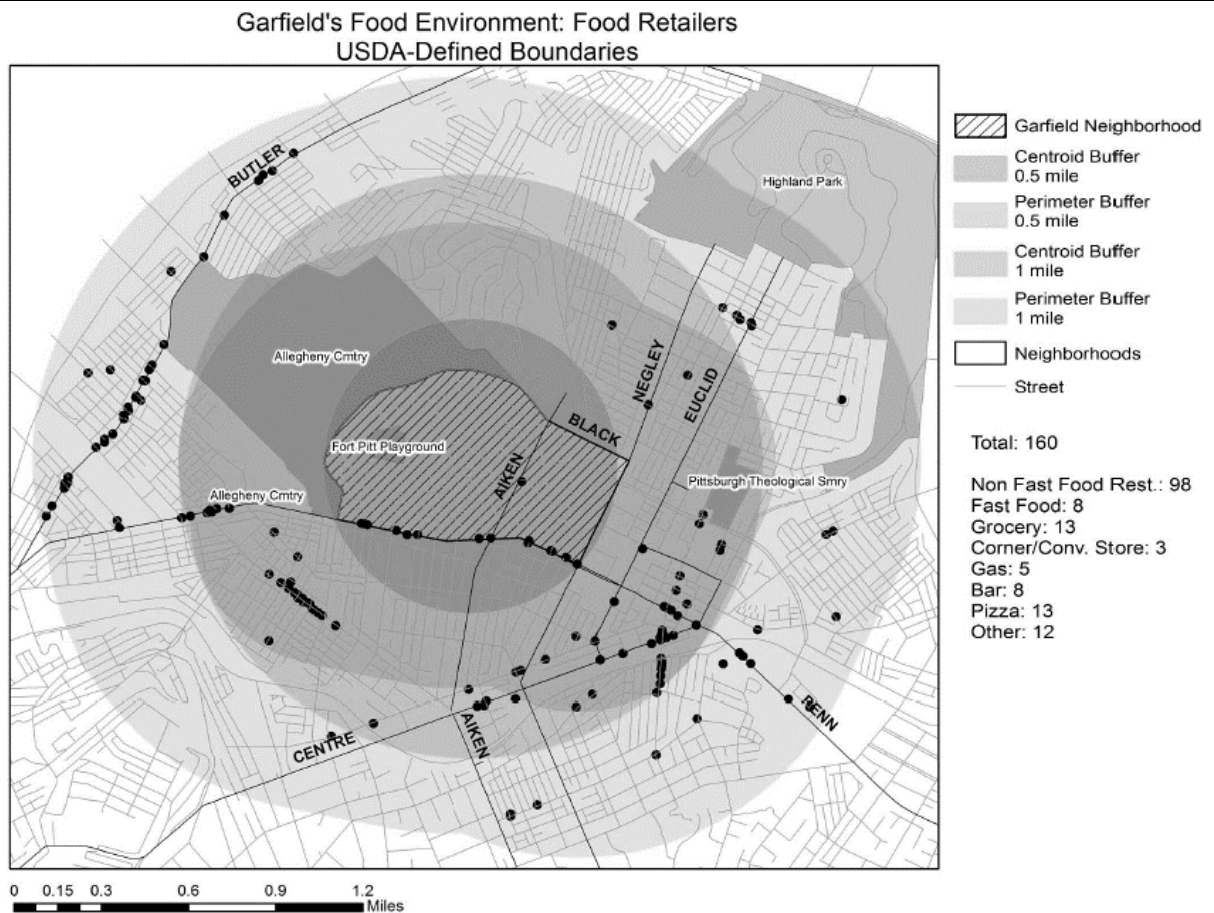
### *Findings*

The researcher identified 160 food retailers within Garfield neighborhood's EOFE as depicted in Table 1. This number represents the low estimate of what is available. There are a few food retailers that are not represented because of time constraints. Again, the buffers represent the area range that is inclusive to the USDA "reasonable distance" definitions of .5

mile by foot (the set of the two inner rings) and 1 mile by vehicle (the set of the two outer rings). The inner ring of each set represents the boundary as measured from the centroid of the neighborhood and the outer ring represents the boundary as measured from the perimeter of the neighborhood.

Garfield's EOFE looks very different depending on the type of transportation available to the Garfield consumer. For those with access to a personal vehicle, there are 160 food retailers, including: 96 (60%) non fast-food restaurants, 8 (5%) fast-food restaurants, 13 (8%) grocery stores, 3 (2%) corner/convenience stores, 5 (3%) gas stations, 8 bars, 13 (8%) pizza places, and 12 (8%) other.

Table 1: Food Retailers in Garfield's EOFE

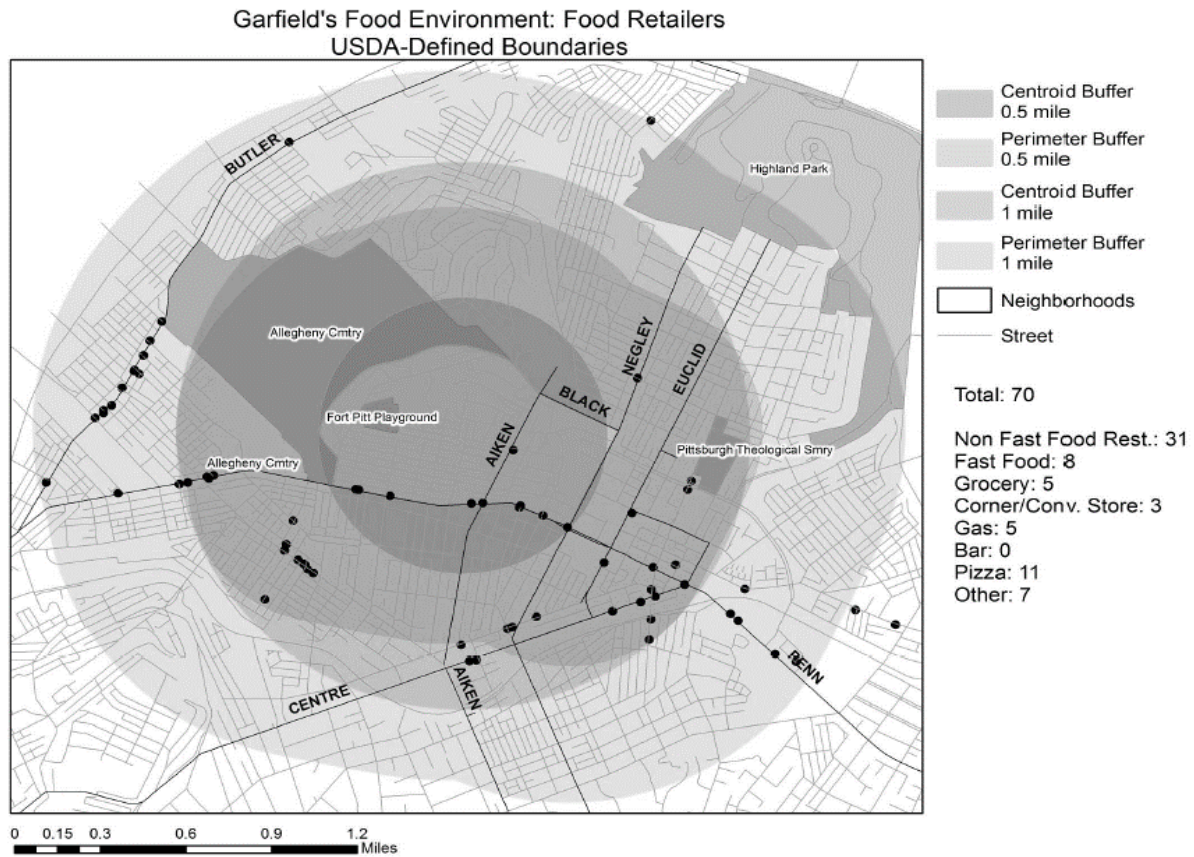


Data source: U.S. Census Bureau

For those who rely on the busing, there are 134 food retailers within .25 miles of a bus route. The researcher inputted the five bus routes (89, 88, 87, 85, 71A) that intersect or border Garfield neighborhood to generate this number. For those who rely on walking, there are 95 food retailers within the combined .5 mile buffers. For those who live near the neighborhood's centroid, that number significantly decreases to 17, only four of which are functioning sit-down restaurants.

These three findings only represent material data in terms of availability and accessibility. When perception data (such as ideal price range or acceptable types of food) is factored in, this expands the definition of access and changes the picture. From the questionnaires, it is learned that the ideal price range for prepared food is \$8-\$9.99. This range falls within Level 1 of the cost index. When we apply that filter (which reflects the affordability dimension of access) to the EOFE, there is a 56.3% decrease in availability of all food retailers and, notably, a 68.4% decrease in availability of non-fast food restaurants.

Table 2: Food Retailers in Garfield's EOFE – Cost Level Analysis: Level 1



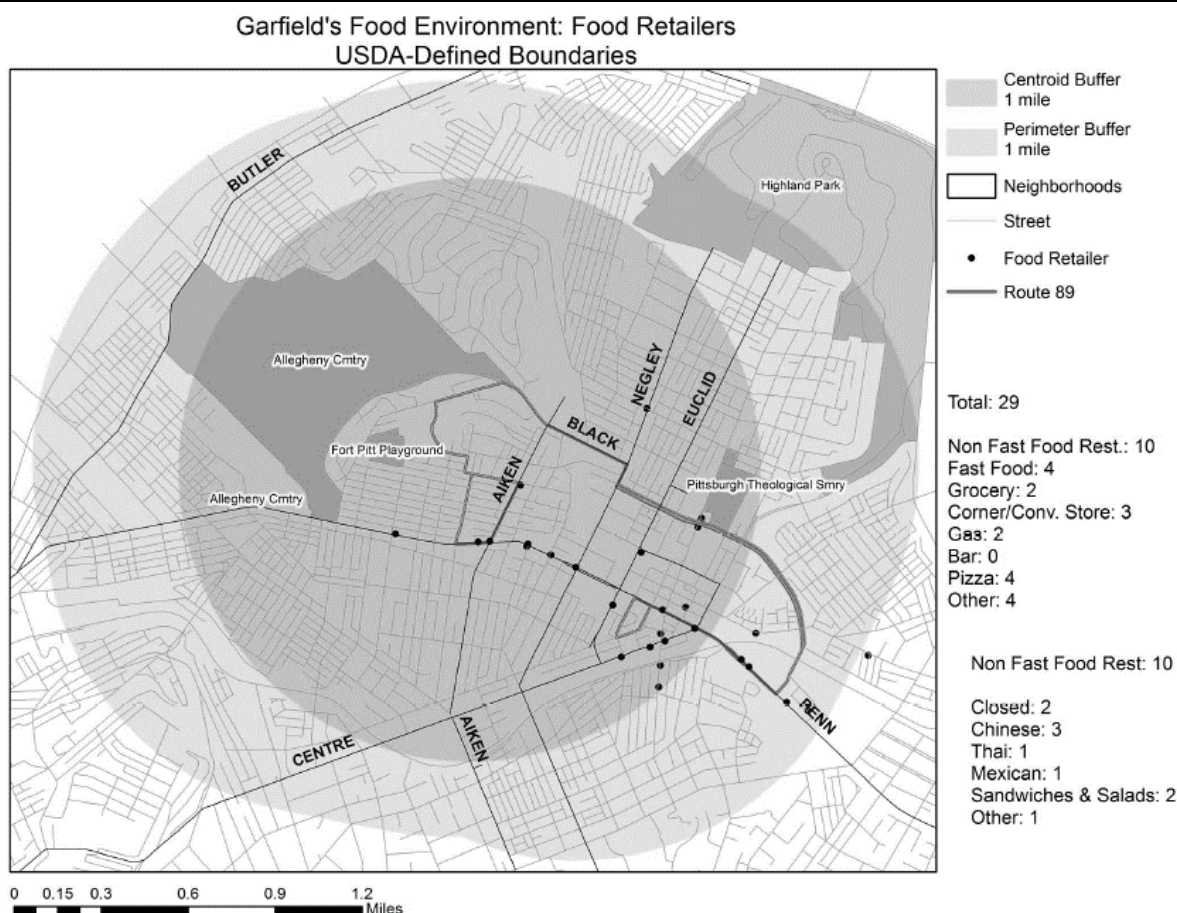
Data source: U.S. Census Bureau

To further illustrate the importance of perception data, we will apply a second filter: food retailers on Bus 89's route. This filter reflects the accessibility dimension of access.

Additionally, we will indicate the type of food offered in the non-fast food restaurants, which reflects the acceptability dimension of access.



Table 3: Food Retailers in Garfield's EOFE – Cost Level Analysis: Level 1 – Bus Route 89



Data source: U.S. Census Bureau

Table 3 depicts the available Level 1 food retailers within a quarter-mile walking distance of Bus 89's route and lists the type of food offered in the available non-fast food restaurants. During the focus groups, the majority of participants said the most acceptable food types are barbeque, soul food and breakfast food. Of the 29 total food retailers, there are 8 operating non-fast food restaurants, none of which serve the type of food that Garfield consumers expressed most desirable.

The researcher chose to use these examples to illustrate the malleability of an EOFE depending on type of data used and definition of access used. To use only material data or only

perception data would yield an incomplete picture; to use only a limited definition of access would yield an incomplete picture.

### **Focus Groups**

The researcher held focus groups to collect perception data from the consumers through discussion and questionnaires. Though the group setting of a focus group can influence the discussion, the researcher chose this method because “group settings often elicit conversation that would not result from structured interviews (Dammann & Smith, 2009, p. 251). There were eight focus groups. Inglis et al. (2014) found evidence that age, education, and SEP have little influence over food purchasing after factoring in consumer perception; therefore, the researcher primarily used householder status as the parameter for sampling. There were six householder groups: single parent-led, child(ren) present; co-habiting couple, child(ren) present; co-habiting couple, no children present; adult-led, no children present; co-habiting adults, no child(ren) present; senior-led households. The final two groups were unique in their composition. One was composed of out-of-school youth ages 18 to 30. The final group was composed of residents who have lived in Garfield for at least 15 years. This last group provided a historical context of Garfield’s EOFE in comparison to its current EOFE. Gathering historical information agrees with an FJM approach and the development of a food justice frame, which, as explained previously, newer research suggests results in more sustainable and acceptable interventions. Again, an FJM approach takes into account the social, historical, and political context of the target community (Kato, 2013).

Focus group meetings were held at Valley View Church, a local institution that is respected in the community. Participants were recruited through quota sampling. Quota sampling is a non-probability sampling method that first defines population categories and then



chooses units from those categories until a specified quota is met (Gray, 2014). The quota sampling categories for the focus groups in the study are defined in the previous section. The sampling size for each group was between four and eight participants. The researcher recruited participants by distributing flyers and making announcements at local events. Interested residents were prescreened to make sure they fulfilled the qualifications needed for the research. Prescreening involved the researcher asking a short series of questions in order to determine their eligibility. Prescreening questions covered age, household type, and number of years lived in Garfield. Residents who were interested and eligible were given the date and location for their respective meeting. The researcher recorded the participants' names and phone numbers in order to contact them a day or two before the interview to remind them. Once the quotas were filled for each group, the researcher stopped recruiting.

Participants received a box of food (priced around \$25) as a thank-you for participation. This was explained during the prescreening stage. The informed consent forms were briefly explained during the prescreening stage as well. Before each session began, the researcher again reviewed the informed consent forms and answered any questions.

#### *Data collection and analysis*

Data was gathered through discussion and brief questionnaires covering EOB, transportation, and perceptions of EOFE. The discussion questions and questionnaires are included as Appendices A-E. During the session, the researcher recorded some observations, but the researcher's focus was primarily on listening and facilitating the discussion. All interviews were audio recorded and transcribed for content analysis. Steward, Shamdasani, & Rook (2006) define content analysis as referring to a variety of approaches that "emphasize the reliability and replicability of observations and subsequent interpretation" (p. 117). The first step in content

analysis is data-making. The Grunert & Goder (1986) data-making model results in a “customized dictionary of categories” (Steward, Shamdasani, & Rook, 2006, p. 128). These categories are used as parameters in dissecting and analyzing the raw material. Focus groups were transcribed verbatim. They were coded independently by two separate researchers and then reconciled. Researchers coded the transcripts using a rubric that reflected Penchansky & Thomas’ (1981) five-dimensional definition of access. Once the transcripts were reconciled, the researcher tabulated the number of unique statements made in each dimension of access. The researcher also identified common themes that were outside the definition of access.

The data from the questionnaires was also tabulated. Since this data is connected to the requested demographic information, there is a possibility for rudimentary correlations, but the size of the sample does not allow for any generalizations or strong relationships. These questionnaires were most useful for helping define the “social distance” of Garfield residents, giving an idea of common EOBs, highlighting the areas of most satisfaction and least satisfaction with Garfield’s EOFE and giving an idea of transportation. There was no identifying information on the questionnaires.

### *Findings*

The focus groups had an average of three participants (the lowest having one and the highest having five). There was a total number of 26 participants. Females (n=20) over represented males (n=6). African Americans (n=18) over represented Caucasians (n=8). It is unknown how accurately this ratio reflects the current demographic composition of Garfield neighborhood. According to the American Community Survey 2009-2013 estimates, African Americans make up 83.3% of Garfield; the ratio from the focus groups is 69.2%. However, in the last two years, there has been an influx of new residents, many of whom are Caucasian. It is

likely that the actual ratio is somewhere between the latest survey estimate and the ratio represented in the focus groups. The average number of people in the participants' households was 2.72. Less than half contained at least one child under the age of 18 and a little over a quarter contained at least one person over the age of 65. The average age of participants was between 45 and 53. The average length of time lived in Garfield was six to nine years.

Focus groups lasted an average of 32.05 minutes. The shortest ("Adult-led") was 18.52 minutes and the longest ("Longer than 15 years") was 49.56 minutes. Table 4 shows the tabulated number of unique statements made in each dimension of access.

Group	# of participants	Total # of unique statements	5 dimensions of access				
			Availability	Accessibility	Affordability	Acceptability	Accommodation
Adult-led	1	60	18.3% (11)	13.3% (8)	15% (9)	36.7% (22)	16.7% (10)
Young adult	3	77	30% (23)	26% (20)	10.4% (8)	18.2% (14)	15.6% (12)
Longer than 15 years	3	109	33.9% (37)	8.3% (9)	4.6% (5)	33% (36)	20.2% (22)
Cohabiting couples with child(ren)	3	96	21.9% (21)	3.1% (3)	24% (23)	31.3% (30)	19.8% (19)
Senior-led	5	81	25.9% (21)	13.6% (11)	12.3% (10)	18.5% (15)	29.6% (24)
Cohabiting adults, no child(ren)	4	181	16% (29)	8.9% (16)	10.5% (19)	31.5% (57)	33.1% (60)
Cohabiting couples, no child(ren)	2	56	35.7% (20)	30.4% (17)	5.4% (3)	14.3% (8)	14.3% (8)
Single parent-led	5	109	25.7% (28)	2.8% (3)	15.6% (17)	40.4% (44)	15.6% (17)
<b>Total</b>	<b>26</b>	<b>769</b>	<b>24.7% (190)</b>	<b>11.3% (87)</b>	<b>12.2% (94)</b>	<b>29.4% (226)</b>	<b>22.4% (172)</b>

*\*highlighted percentages indicate highest two ratings*

**Availability.** Subcategories for availability included: lack of options, existing food retailers, food retailers that used to exist and food retailers that participants desired to exist. The current EOFE is perceived as much less saturated than it used to be. Only a couple decades ago, Garfield had a booming EOFE— “it used to be good back in the day”—and those that remember those days reflected on it heavily during the discussions. There were bakeries, barbeque places, soul food places, pizza shops, store buses and ice cream shops. Even in the past couple of years, places have closed that have left a marked impact on Garfield consumers. Participants used words like “sad” and “loss” and “left a hole” when talking about these closures. In describing the EOFE now, it was most common for participants to use words that expressed limitation, such as “only option” or “one of the few spots” or “all we got” or “nothing.” The language used clearly expressed dissatisfaction with what was available. Some participants even framed it in a way that suggested perceived unfairness, in that they do not have “food that taste good and don’t cost an arm and a leg like they have in other communities.”

Further, the EOFE is perceived to have little variety. Residents expressed the desire to eat healthy but felt that “everything is fast food” and that they were forced to “end up eating at Wendy’s...or McDonalds.” Comments like this were more frequent among participants who did not have access to a personal vehicle. Another unique thread to availability was the focus on lack of delivery options. This was similarly expressed in terms of limited availability—“two places”— and limited variety—“it’s always pizza.” Again, there was the expressed desire for healthier options but the perception that “healthy food they don’t deliver” was a shared one among at least half of participants.

**Accessibility.** Subcategories for accessibility included: convenience of route, transportation and distance. Accessibility also played into the “social distance” measurement of Garfield’s EOFÉ. The physical boundaries of the neighborhood, especially depending on the type of transportation a consumer had access to, did not necessarily match with the perceived boundaries—“I consider that Garfield territory right down there...because it’s walking distance.” Participants who did not rely on a personal vehicle talked about places that were “walkable” or on the main busline. This functionally cut out the neighborhoods that are only “close...if you drive,” such as Lawrenceville, Highland Park, Shadyside and Stanton Heights. The food retailers that were most referenced by walkers and busers were located in Garfield, Bloomfield or East Liberty (especially around Penn Circle because that is along the main bus route). There is only one bus route, the 89, that goes through the neighborhood. This bus used to run every fifteen minutes seven days a week, but now only runs once an hour during the weekdays only. Participants felt “stuck” on the weekends and that “you can’t get anywhere.” There are other buses; however, all their stops are on the bottom of the hill.

The hills of Garfield are a major deterrent to accessibility. There is a street in Garfield called Wicklow Street. Many Garfield residents speak fondly of this street because it is where they learned to ride their bike, since it is one of the only flat streets in all of Garfield. One participant’s statement sums up the general feeling of participants—“it’s just so hilly, it’s unreal.” Older participants talked about how they “walked up that hill many a times” over their life “and now [they] can’t do it anymore.” This was not just a sentiment shared among the older participants, it was one echoed by younger participants as well. The hills present a barrier to accessing the prepared food that consumers want. During one group, the participants talked about the many desirable food retailers available in Lawrenceville. The participant with a

vehicle talked about going “down there” to eat. However, another participant, who relies on walking and biking, remarked, “it was already hard enough to get up my hill and to like take another...especially after dark I wasn’t gonna do that. That’s just not gonna happen.” This excerpt also highlights that time of day may make doable routes suddenly undoable. Weather also impacts this. Speaking about the hills, a participant said that during “inclement weather...like in the winter...some days I couldn’t get out of my house.” There used to be a small strip mall with food retailers that was located on top of the hill. During that time, “you didn’t have to leave the top of the hill unless you wanted to.” Now the hill is an obstacle that must be negotiated in order to get prepared food because there “isn’t no close stores around.”

***Affordability.*** Subcategories for affordability included: cost and opportunity cost.

Opportunity cost was usually framed in terms of cost and food quality, cost and food taste or cost and food amount. When talking about Meals on Wheels, participants felt that the food quality was not worth the \$3.00 but when talking about a meal from a fish joint in a neighborhood a couple miles away, the taste and amount of food made its \$7.00 cost seem very fair. Many participants perceived healthy food to be out of their price range, commenting that “it’s healthy foods you can’t afford.” A resident talked about her first experience purchasing organic food and said “it was a little bit expensive but it was really good...it just reminded me of the way you’re supposed to eat.” Though a few remarked that even a couple dollars more is “too much,” most agreed that they “don’t mind paying a little bit more if...it’s going to be good quality.” Opportunity cost was also about consistency. One participant illustrates this by comparing two Mexican restaurants. One is much closer but “it’s really expensive and their food is hit or miss” but the other “is more consistent, so if I’m going to spend money I’d rather go there to spend money.”

Food amount also played heavily into opportunity cost. Many times when participants talked about price, it was joined with the amount of food that comes with that price: the sandwiches here are “between \$5.00 and \$10.00, and they’re filling”; “unlimited for \$16.99”; “\$5 and...there’s a full meal”; “\$5 things that were semi-filling.” Places that were “expensive” with “really small plates” were seen as unfavorable. A few participants compared two barbeque places, one about a mile away and one a little over two miles away. The former is “expensive” and the amount of food is not substantial; the latter is a little less expensive and they serve “way more food...so it’s like why pay at” the one place when money can go further at the other place. Participants were also very knowledgeable about weekly deals or the differences in price from lunchtime to dinnertime.

Some participants talked about judging the affordability of a place based on its appearance. In talking about a new place that opened up on a major street in the East Liberty neighborhood, one participant said “they look a little pricey” and another said “I just looked at it. I’m like ‘no’.” In a different group, a participant, in talking about the newer places that have opened up in response to the development going on in East Liberty, said “now there’s a couple others, but they’re all kind of...they’re a different price range, so they’re kind of like alien to a lot of people.”

***Acceptability.*** Subcategories for acceptability included: food taste, food quality, atmosphere, perception of space, perception of location, perception of other consumers and perceived busyness. Some participants indicated that the busier a place is, the more legitimacy and desirability it has. When one participant was talking about why she did not like Union Pig and Chicken on Highland Avenue, she said that “you don’t see too many people in there.” On the other hand, People’s on Penn Avenue is “jammed pack...you can’t find a table.”

Atmosphere was a common thread. Some places are “too loud” or “cultureless.” Others feel “cool” to be in. In still others, “you see everybody there’s dressed and then it makes you feel...uncomfortable.” Some young women expressed that they would feel uncomfortable walking into some places alone because of the “pretty crappy” atmosphere. It was important to many participants that the atmosphere was family-friendly. One participant describes Garfield as “just nice and calm and settled, family-oriented...there’s a lot of kids.” Another comparison between two food retailers serving Mexican food is given. One is “kid-friendly” and there are “a lot of families there.” The other is “not a family-friendly atmosphere at all.” Some participants viewed the atmosphere of places very differently. There is a high-end restaurant on Penn Avenue right on the bottom of the hill in the Garfield neighborhood. An older female participant who grew up in the Garfield neighborhood talked about not having “them type of restaurants in our neighborhoods” growing up...they’re more like exclusive and...kind of prestigious” to take “somebody coming from out of town” to because it’s “like” being “in another state or something.” In contrast, a younger female participant, one who had more familiarity with high-end restaurants, simply dismissed them as “hoity-toity.”

Food quality was another aspect touched on in multiple groups. Food that did not look “fresh” was unacceptable. One woman shared a story about her grandchildren purchasing chicken from a convenience store (the only available store close to her). She “took them back” because she “would not feed that chicken to a dog.” Other participants chimed in that they “wouldn’t buy nothing like that no how...not from no convenience store.” Multiple participants talked about low-quality foods not lasting—“an hour later they’re hungry.” All participants talked about their preference for high-quality foods. One participant favored retailers that “make their stuff from scratch” because she believed that was “more healthier.” Another spoke



favorably of Chipotle because “nothing was processed.” Many others used words like “real” and “good” to describe high-quality food. Sometimes quality coincided with taste, but other times taste was distinct from quality. Two participants reminisced about a former food retailer that had tasty chicken; it was “greasy and good...clog up your arteries and be happy.”

The cleanliness and presentation of a food retailer was also important. A participant did not trust the food in one retailer because his store is “dusty.” Multiple participants talked about rumors of “rats and mice” in certain food retailers around their neighborhood. Perception of location also factored into participants’ opinions. Some locations do not “feel safe.” One participant talked about preferring places that were located on major streets as opposed to “stuff hidden...down back in the cut.” Another talked about the Lawrenceville neighborhood and her perception of it a couple decades ago versus now. A couple decades ago, Lawrenceville was seen as an undesirable location because she perceived the area as being very racist against African Americans, like herself. Now she talks about the location in a very favorable light, that “there’s all kind of restaurants” and that its vibe makes you “wanna get out and walk and see what’s there and stop at a couple places.”

Acceptability also has to do with familiarity. An opinion that was echoed by many was: “there’s a lotta places that I see that I don’t know about, and I’m not going in anybody’s restaurant.” A couple participants disagreed, having the opinion that “you just gotta go into places.” Familiarity was sometimes cultivated second-hand through word-of-mouth or trusted third-party recommendations. Participants frequently used phrases like “heard through the grapevine” or “I heard” or “saw on the news” or “[certain person] told me that.” Some participants were much more likely to visit a retailer if someone they trusted vouched for it. Familiarity was very important to many participants. One participant talked about her pleasure

going to a favorite diner where the owners know her name. Another participant talked about the special experience of eating at a local restaurant where the owner is usually joined by his family and being able to “[watch] the whole family kind of grow up” over the five years the participant has patronized the restaurant. In talking about the places that have closed throughout the years, the ones that participants expressed the most sadness over were the ones with which they had been most familiar.

***Accommodation.*** Subcategories for accommodation included: perception of staff, diversity of options, services offered, different forms of payments accepted, length of lines, hours of operation and organization of store. Organizational aspects such as seating and set-up were important. Multiple participants expressed the desire for retailers that had space for meetings, especially “with unending...coffee.” Older participants and participants with families talked about the importance of retailers having booths or tables— “somewhere to sit and eat.” One participant hated the “picnic seating” at a local food retailer.

Operational aspects such as pricing, staff, hours of operation and service options were discussed as well. One participant prefers taking her family to a certain food retailer because there is a “set price...like everything is \$9 or \$10.” Hours of operation were mentioned frequently. Participants expressed dissatisfaction with the “weird hours,” unclear hours and/or inconsistent hours of some food retailers. Participants were satisfied with places that were “open in the evening times.” Many participants appreciated places that offered both prepared food and grocery and/or convenience items, like “a restaurant combined with sort of like Giant Eagles (a chain grocery store).”

Participants, especially younger participants, expressed frustration that more places did not offer take-out and/or delivery.

A big frustration revolved around places not delivering to Garfield; places “won’t come up here, though...they scared of Garfield.” Participants shared that fifteen or so years ago, Garfield had some violence but was not “half as bad as” some other Pittsburgh neighborhoods and “don’t really even got a reputation to be tough.” For the majority of participants, the only reason that Garfield had a negative reputation was because “there was a lot of public housing” and because the color of its demographic resembled the color of those other more violent neighborhoods—“clearly it’s all the black neighborhoods.” One participant shared a story of frustration. She was at a Chinese restaurant one day. She asked them if they would delivery to her house because she saw from their map that her house was within their delivery radius. When they asked her where she lived and she told them near Black Street (a main thoroughfare through the Garfield neighborhood), they said they would not deliver there. After asking why, they told her this story of hearing about “some delivery guy back in the day” getting “shot up there or shot at.” Though participants said that Garfield is safe now, the negative perception still remains and “it messes it up for...younger generations or the older generations that’s trying to order food.” This is “a big issue because” there are “folks in the neighborhood that can afford to have deliveries...but it’s just something that doesn’t happen.”

Menu options and menu diversity was most often seen as a good thing. Participants preferred food retailers that had several options. One place “had that nice range of like super-simple...cheap...to like fancy...still pretty cheap.” Participants expressed preference for places that served “everything” though some thought a “hectic menu” was a warning sign that the restaurant was in trouble. The availability of healthy options was mentioned in every group. One participant’s wish, expressed in different words by many others, was that “there were healthier options at...existing places. A lot of them seem to conform to...like if it’s a salad, it’s

got to have fries on it, sort of mentality” and that is “an equally big problem as anything else.”

Another participant, who is a diabetic, is adamant that restaurants need to “make it healthier for everybody.”

Dietary considerations were another important conversation. Multiple participants talked about the many residents with diabetes and how it is important to have nutritious and low-salt options. A participant with a gluten allergy discussed the difficulty in finding places to eat with her family. All fast food places and pizza places are out because of her allergy, so they end up doing “a lot of ethnic food.” Some participants expressed frustration at the lack of “vegetarian and vegan options” offered in food retailers. Plate sizes were also mentioned. Older participants shared that they often could not eat large portions and appreciated places that offered senior meals and/or “small portions.”

Lastly, perceptions of staff was important to many participants. Some spoke very fondly of places simply because of the friendliness of the owner and/or staff. In speaking about two different food retailers of similar type in a similar location and with a similar price range, one was much less preferable because the owner “is not so nice.” One participant spoke highly of restaurants that belonged to the Big Burrito Restaurant Group because “they know how to take care of their customers so they’re not going to argue with you; they’re going to take care of you.” Another shares a story about when she and her friend timidly ventured to a new restaurant. The restaurant was in a location that she, as an African American woman, thought may not be receptive to her. However, the “owners were really nice,” and so, she felt really “comfortable.” They “went back just about every Sunday” for a while.

***Other.*** There were four common threads that are worth note that exist outside of the definition of access. The first was the changing demographic of Garfield, which was often

manifested in terms of cultural appropriateness or cultural misunderstanding. An older African American woman talked about a coffee place on Penn Avenue. This woman had heard “on the news” that this place had the best coffee in Pittsburgh, so she wanted to stop in and try a cup. She walked there and looked inside: every customer there was on a computer. She decided to pass by and come back another day. She did this two more times and she saw the same thing both times. After the third time, she came to the conclusion that in order to go inside, a customer had to have a computer. So she “never went in there” because she did not have a computer. A young Caucasian male shared a complementary insight. He mentioned a couple places that are walkable but that he “[doesn’t] feel necessarily comfortable going to, because [he] feels like [he is] out of place and...shouldn’t venture inside.” He said:

it just brings into focus that we’re white people, like young, white, artsy people, in a neighborhood that like historically is very different. And I think we are all cognizant of like the general trajectory of gentrification and how we are like sort of this first wave, or we can be...so it makes me feel bad to confront that when I’m trying to eat dinner.

Residents are aware of the transformation happening in the neighborhood. Their sensitivity to this prompted many participants to express their desire for a place that appeals to every demographic and that “people feel comfortable in going to.”

A second thread revolved around the 89 bus. Every group expressed extreme frustration that there was only one bus, that it only ran once an hour, and that it did not run on weekends. Often, when the topic of the bus came up, participants would talk about that for a couple minutes before transitioning back to food on their own or with prompting from the researcher. A third thread involved the communal aspect of eating-out. The majority of participants expressed that

they were more than willing to try new places but they will not do it alone, they “like to go with someone.”

The final thread that is noteworthy concerns the reputation of Garfield. The majority of participants expressed frustration, and some bewilderment, that many existing food retailers did not deliver to their homes. The frustration came from a place of perceived injustice. They have the desire for the good and the means to pay for the service; however, that service is denied them. Participants felt that this refusal of service was primarily based on the perceived collective color of their neighborhood’s skin and the presence of section 8 housing.

Lastly, though there were some common threads through all the focus groups, the conversations were sometimes quite different in the direction they took. For example, the young adult conversations focused much more on convenient and fast food options but the co-habiting couple, child(ren) present conversations focused much more on family- and child-friendly food options. The focus group comprised of seniors talked more of health-consciousness than the focus group comprised of single parents.

***Questionnaires.*** Not all focus group participants fully completed the questionnaires. The three questionnaires measured perception of EOFE, EOB, and transportation. Questionnaire 1 (appendix a) measured consumers’ perceptions of their EOFE. There were 24 questions (there were 25 but one was discarded because it was a repeat). Each question corresponded to one of the five dimensions—availability, accessibility, affordability, acceptability, accommodation— included in the definition of access. The questionnaire used a Likert-scale from 1 (very satisfied) to 5 (very dissatisfied). The “% Satisfaction” column reflects the satisfaction rate for the specific aspect that the question is measuring; the “total % satisfaction average” reflects the consumer satisfaction rate for the dimension. The “% Satisfaction” column was calculated using the

equation =  $100 * (1 - ([\text{rating}] / 5))$  for ‘positive’ worded questions (questions 1-7, 9-10, 12, 16-22, 23) and =  $100 * ([\text{rating}] / 5)$  for ‘negative’ worded questions (questions 8, 11, 13-15, 22, 24). The questions, the average rating of their responses per question, and the average rating per dimension of access are listed in Table 5.

Table 5: Consumer perceptions of EOFE		
	Avg. Rating	% Satisfaction
Availability		
1. There are many places in my neighborhood to get prepared food that I consider high-quality.	3.45	30.9
2. There are many places to get healthy prepared food in my neighborhood.	3.77	24.5
3. There are many places to get the prepared food that I and/or my family like in my neighborhood.	3.23	35.5
4. There are many places that deliver food that I and/or my family like to eat.	3.55	29.1
Total % satisfaction average		30.0
Accessibility		
5. There is more than one kind of transportation that can take me to get to the places where I buy prepared food.	2.86	42.7
6. It is easy and convenient to get to the places where I like to buy prepared food.	2.86	42.9
7. It is easy and convenient to get to a place that sells high-quality prepared food.	3.00	40.0
8. There are times when I don't buy the prepared food that I want because I can't find transportation to get there.	3.43	68.6
9. It is easy and convenient to get to a place that sells healthy prepared food.	2.76	44.8
Total % satisfaction average		47.8
Affordability		
10. Buying the prepared food that I like is affordable.	2.71	45.7
11. I cannot afford to buy high-quality prepared food.	2.64	52.7
12. There are many places that sell delicious prepared food that I can afford.	2.77	44.5
13. The places that sell healthy prepared food are too expensive for me.	2.27	55.5
14. It's just too much trouble to buy the prepared food that I want.	2.82	56.4

15. I just buy prepared food from whatever is closest because it's easier.	3.14	62.7
Total % satisfaction average		51.3
Acceptability		
16. My friends buy prepared food from the same places where I buy.	2.65	47.0
17. I like the people that I run into at the places where I buy prepared food.	2.14	57.1
18. The places where I buy prepared food are in a neighborhood that I like.	2.24	55.2
19. The places where I buy prepared food are clean and look nice.	2.10	58.1
Total % satisfaction average		54.4
Accommodation		
20. The places where I buy prepared food have workers that are professional.	2.19	56.2
21. The places where I buy prepared food accept the form of payment that is the most convenient for me.	1.82	63.6
22. There are places I want to go to buy prepared food, but the hours that they are open don't fit my schedule.	2.36	47.3
23. The places where I buy prepared food have workers that are friendly.	2.00	60.0
24. There are long lines at the places where I buy prepared food.	2.64	52.7
Total % satisfaction average		56.0

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\*Highlighted questions indicate "negative-worded" questions

The dimension of *availability* received a significantly lower satisfaction rate (30.0%) than the other four dimensions, with *accommodation* receiving the highest (56.0%). The two questions that received the lowest satisfaction rates were: "2. There are many places to get healthy prepared food in my neighborhood" (24.5%) and "4. There are many places that deliver food that I and/or my family like to eat" (29.1%).

The second questionnaire (appendix b) measured transportation. Primary modes of transport, in order of frequency, are: bus (44%), personal vehicle (32%), jitney (12%), bike (8%), and walking (4%). The majority of consumers had access to more than one form of transportation. The average time it took to get prepared food was between 11 and 20 minutes.



This range agreed with what the average consumer thought was a reasonable time to get prepared food.

The third questionnaire (appendix c) measure EOB. The average frequency for eating outside the home was once a week to a couple times a week. The average frequency of getting delivery/take-out was rarely to once a week. The top three places consumers bought prepared food were: grocery store (25%), fast food restaurant (17%), and sit-down restaurant (17%). The top three places to eat prepared food were: sit-down restaurant (27%), relative/friends (22%), and fast-food restaurant (18%). Also, the average consumer thought the ideal price range was between \$8 and \$9.99.

### **Maps Activity**

For this activity, the researcher developed a base map of Garfield neighborhood and its immediate surrounding neighborhoods. This map included street names and neighborhood names. The researcher put together packets of four base maps. Each map correlated with a specific aspect: safety, street preference, location preference, and bus stop preference. Participants were invited to mark the maps using three crayon colors (red, green, and yellow) to indicate the acceptability and unacceptability of certain areas. The purpose of this activity was to give the researcher a supplementary idea of the “social distance” of Garfield’s EOFE that will inform the policy and intervention development stage during the community meeting.

The researcher used a convenience sample to recruit participants. Convenience sampling is a non-probability sampling method where units are chosen because they are easily accessible. The researcher stood outside certain landmarks or organizations in Garfield or walked around the neighborhood and recruited participants from those who passed by. People who were interested were prescreened to make sure they were 18 years or older and lived in Garfield.

The map activity asked for three pieces of demographic information: sex, age, and length of time lived in Garfield. The researcher went through informed consent with participants before the activity began and answered any questions they had. Participants were given small gifts for participating in the activity. The researcher explained this during the prescreening stage of recruitment.

#### *Data collection and analysis*

The completed maps were collected and analyzed. The researcher tabulated the results of the maps and generated a new map that identified most desirable areas and least desirable areas.

#### *Findings*

There was a total of 27 participants for the maps activity. There were 18 females and 9 males. The age range most represented was '18-26' and the average was '27-35.' Over half of the participants had lived in Garfield more than 10 years; 48% more than 15 years. Exactly half had access to a personal vehicle.

For the 'bus stops' map, the 89 (5) received the most 'green' marks. This is the only bus route that runs directly through the neighborhood. Bus routes that ran along the section of Negley St. that borders Garfield Neighborhood (the 71A and 87) received the second most 'green' marks.

For the 'location preference' map, the sections of Negley St. (10), Black St. (8), and Aiken St. (8) contained within Garfield neighborhood received the most 'green' marks. Larimer neighborhood (4) and the area where the Garfield Commons Apartments (4) are located received the most 'red' marks.

It is important to provide some context for this. Garfield is almost split into two communities—the top of the hill, which is The Commons, and the rest of Garfield. The Garfield

neighborhood is a very family-oriented neighborhood. Many people who live in Garfield have lived there a long time and come from families who lived there before them. It is very common for a “name game” to be played when two strangers meet for the first time where a litany of names is gone through until both have a connection to one. Names are a sort of currency. This builds a level of trust and respect among neighbors. The Commons, however, are a Section 8 housing development that uses the voucher system. With a voucher system, a person is simply sent to where there is an opening. People have no say in what neighborhood they stay in or go to. The Commons, therefore, contain many residents who are not from Garfield and have no connection to Garfield. This creates some level of distrust and wariness between residents of The Commons and residents in the rest of the Garfield neighborhood. During the maps activity, people who lived outside of The Commons sometimes marked The Commons with ‘yellow’ or ‘red’ and visa versa.

For the ‘safety’ map, 37% of participants indicated that they felt safe everywhere. Younger participants were much more apt to mark the entire map ‘green’ than older participants, younger males in particular. Other areas that received high ‘green’ marks were Negley St. (5), Garfield neighborhood (5), Aiken St. (4), Mossfield St. (4), East Liberty St. (4) and Shadyside (4) neighborhood. The Larimer neighborhood received the most ‘red’ marks (3). This was unsurprising as the Larimer neighborhood and Garfield neighborhood have a history of gang rivalry.

For the ‘street preference’ map, the streets that received the most ‘green’ marks in order were: Negley St. (12), Black St. (12), Penn Ave. (9) and Aiken Ave. (8). The streets contained in Larimer neighborhood received the most ‘red’ marks (5).

## **Socio-demographic analysis**

The researcher performed a socio-demographic analysis of Garfield and its surrounding neighborhoods. The researcher drew from American Community Survey (ACS) data and Census data to perform this analysis. The purpose of this analysis was to provide a context for the food environment, for developing interventions in the community meeting, and for future studies that seek to compare Garfield to other geographic units of analysis.

### *Findings*

It is difficult to get an accurate picture of the sociodemographic make-up of the Garfield neighborhood because many of the recent changes are not yet reflected in the most current ACS data, which are the 2009-2013 five-year estimates. Compared to 2000, population has decreased by 42.8%. However, even with the decreased population, there is \$24 million more, which is a 31.6% increase, in the community (as represented in aggregate household income). The per capita income has also increased by 18.2%. There is a slightly lower percentage of families (12.7% decrease). According to the most current estimates, a little under half (43.6%) of the population is either young adults (15-30) or seniors (60 and over). Finally, the home ownership rate among nonfamily households is 42.8%, and the home ownership rate for married couple households is 59%. These statistics are mentioned first because they represent some of the community's assets in relation to eating-out. Though there are fewer people, there is more money. Also, the decreased rates of families may imply more disposable income. Home ownership is also associated with having more disposable income. Lastly, young adults and older adults generally have more disposable income to spend and tend to eat out more. In fact, Laska, Graham, Moe, & Riper (2010), in their study with young adults (ages 18-23), found that 40.9% of eating occasions happened outside of the home. 43% of the money that millennials

(ages 25-34) spend on food is spent on food outside the home and for baby boomers (ages 51-70), that number is between 37% and 38% (Ascarelli, 2015).

A general demographic profile of Garfield shows a population of a little over 3,800 with over 1,500 households. The median age is 32.5. African Americans comprise 85.1% of the population, Caucasians comprise 9.6%, and the other 5.3% is a mixture of races. 44.6% have some college or an associate's degree. 40.2% have incomes that put them at or above 150% of the poverty line. The unemployment rate is 20%.

### **Community Meeting**

The final phase was to hold a community meeting open to all Garfield residents as well as stakeholders living in or working in Garfield. Invited stakeholders included local city council members, local business owners, local food retailer owners and operators, leaders of local places of worship and representatives from local nonprofits. The purpose of the meeting was tri-fold:

1. To share key-findings based on the analysis of the research. This helped foster equanimity by creating equal access to a shared knowledge-base. This also provided tools and analyses that informed the discussion.
2. To bring together a diverse group of stake-holders with their unique forms of capital and assets, in an environment that honors each participant's sovereignty and autonomy. This agrees with an FJM approach and is associated with effective, appropriate, and sustainable solutions.
3. To lay the foundation for the development of culturally-appropriate and feasible interventions. This was an action-oriented study; the ultimate goal was to spark the development of an intervention or policy that will improve the equity of Garfield's EOFE.

The community meeting was organized in a way that honored FJM's components of food access and food sovereignty. In terms of food access, the researcher shared maps and findings from the food retailer analysis. The researcher also explained that there are different dimensions of access. In terms of food sovereignty, the researcher incorporated a community brainstorming session and community vote to generate first ideas for interventions and then narrow them down. The direction and decisions were decided by the community, as opposed to the facilitator and/or researcher. FJM also encourages the history of a community to be a part of the discussion; therefore, incorporated into the schedule was a time for a long-time Garfield resident to share about the history and evolution of Garfield's EOFE.

All this was done because food literature bears evidence that interventions are most successful when they are culturally appropriate (Kato, 2013, Sbicca, 2012, Bell et al., 2013, Munoz-Plaza et al., 2013), take into account location (Kato, 2013), cultivate a sense of ownership in the targeted community (Kato, 2013), fit within the local history and local environment (Kato, 2013; Walker et al., 2011), and honor the sovereignty and autonomy of consumers (Caspi et al., 2012). All these components are contained within an FJM approach. To arrive at this, there needed to be a strong representation from the local community and a diversity of stakeholders each holding various forms of capital (Sbicca, 2012; Bell et al., 2013; Leib, 2013). A lack of local representation and buy-in threatens the effectiveness of any proposed interventions or policy recommendations (Leib, 2013; Penchansky & Thomas, 1981).

Getting sufficient participation posed a challenge; community members are much less willing to participate if they do not believe that the benefits of their participation will outweigh the effort of their participation (Leib, 2013; Penchansky & Thomas, 1981). The researcher mediated this by community preparation and community mobilization. Community preparation

started with the pilot study and continued to the date of the community meeting. The primary form of preparation was through informal discussions with community members. While distributing flyers, walking through the community or meeting community members at different businesses or organizations, the researcher would share about her project. This accomplished four main purposes: it created familiarity between the researcher and the resident; it sensitized the resident to the project; it allowed the researcher to observe the reaction of the resident to hearing about the project; and it opened communication for the resident and researcher to talk in a meaningful way about eating-out in Garfield. These simple interactions helped create trust between the researcher and community members, acted as informal data gathering opportunities for the researcher, empowered residents (because they had the space to share their opinions), and started spreading the conversation.

The meeting also represented an opportunity to educate the audience about disparities between perception and reality. For example, Walker et. al (2011) found that among low-income study participants it was perceived that unhealthy food was cheaper than healthy food. This perception is not always true, and it represents a psychological barrier that can be addressed at a community meeting simply by having a stakeholder, such as a restaurant owner, share information about prices.

The meeting took place at Valley View Church, which provided a comfortable, safe and informal meeting place. The meeting was anticipated to last one to one-and-a-half hours and would then be followed by a time of food and fellowship. The food provided was either donated or purchased from food retailers in Garfield's EOFÉ. The meeting was primarily facilitated by a respected and qualified member of the community whom the researcher had recruited. Research suggests that "shared history," which existed between the facilitator and majority of participants,

can encourage greater participation and honesty (Carnevale & Choi, 2000). This also freed the researcher to act as an observer and to take notes, as well as play a support role for the primary facilitator.

### *Recruitment*

Starting with the pilot study, the researcher told participants and other community members that there would be a community action meeting sometime in the early fall. About a month before the meeting, the researcher systematically canvassed the community, passed out flyers, posted flyers at local businesses, sent out invitations through social media and made announcements at some local organizations. In light of the justice frame, it was important to market in a variety of ways in order to reach all demographics represented in Garfield. The researcher also intentionally contacted specific stakeholders, including persons with power to make policy changes, before the meeting to share thoughts and feelings about the research and purpose of the community meeting. These stakeholders were formally invited to attend and participate. The researcher hoped that the diversity of stakeholders invited would help to further mobilize the community to participate.

The community meeting was open to all Garfield residents. No demographic information was gathered. The researcher read an explanatory informed consent script before the meeting began. Participants had the opportunity to ask questions after the script was read. Participants were asked to print and sign their name on the “Informed Consent” slip that was included in the handout they received. They were asked to mark one of two options: ‘full consent’ or ‘partial consent’. If they marked ‘partial consent’, then they were choosing not to say anything publicly or to state clearly “I don’t want this opinion recorded” before sharing something publicly.



### *Data collection and analysis*

The researcher invited two qualified researchers to attend the meeting and act as note-takers. They arrived before the meeting started and ended after the meeting broke for food. One note-taker took more of an ethnographic approach. He sat among the participants and recorded observations relating to use of space, interactions, body language, participant response, etc. The other note-taker took a less ethnographic approach. She sat apart from the participants in a front position where she could look at everybody the whole time. Additional note-taking happened after the meeting during a debrief session between the facilitator and the researcher, during which the researcher took notes. These three pieces comprise the qualitative data gathering on the community meeting process. During the brainstorming session, the researcher also took notes to record the suggestions of the participants. The researcher used these notes, in addition to the key findings, to write a brief summary of the meeting and compile a list of the suggested interventions and policy recommendations. This summary was disseminated to stakeholders and other potential partners or allies. This summary was also made available to any interested community members.

### *Findings*

Upwards of 30 people participated in the community meeting, of which seven were intentionally invited stakeholders. According to the ethnographic notes, there were about eight males and 24 females, 10 Caucasian and 22 African Americans and a wide variety of ages. Some participants knew each other. The meeting lasted 1.5 hours. Both note-takers commented on how the first-comers functionally segregated themselves by race in how they sat. As more people arrived, this was less true. Both note-takers, the facilitator, and the researcher remarked that four of the stakeholders sat very separate from the rest of the participants. Two sat together

and vocally participated in the meeting. The other two sat independently from each other and did not participate vocally. The other three stakeholders sat among the participants. Some participants were much more consistently vocal than others; however, others participated through body language or words of agreement.

The ideas that were generated during the meeting included: community kitchen, barbeque counter place, breakfast place, sit-down restaurant, family-friendly place, “hot bar” buffet, sandwich place, and bakery. In addition to places, there were other aspects discussed: safety, variety of menu and job provision, the isolation of independent entrepreneurs. There were some more intangible qualities that were brought up as well. The importance of good food (in terms of quality and taste) was stressed multiple times. Also, the value of sitting in a restaurant as a young person and learning from older consumers was discussed. One participant shared how as a young girl she would observe and listen to, sometimes for hours, the adults in the restaurant with her. In this way, she learned restaurant etiquette, social etiquette, and information about current events or local news. Eleven participants volunteered to be on the food task force. These volunteers included residents and stakeholders. Also, a date for the first task force meeting was set.

The majority of participants stayed to have food afterwards, during which the conversation continued in an informal manner. Some participants also sought out others who were not known to them previously to have specific discussions in response to what they heard during the meeting.

### **Discussion**

There are many points for discussion; however, keeping in mind the purpose of this study, it is most relevant to focus on those areas that speak directly to FJM and a food justice

frame. This study sought to use an FJM approach to promote equitable food environments for the purpose of increasing consumer satisfaction. Implicit in this is the necessity of an effective food justice frame, one that sufficiently encapsulates food access and food sovereignty. The discussion section was written with this in mind.

As expounded on earlier, there is currently a tenuous grasp on food access in food literature. This is a major impediment to real progress in food systems. This study sought to test a five-dimensional definition that incorporated both material and perception data. The study started with Penchansky & Thomas (1981) definition of access and made a few modifications to make the definition more applicable to prepared food. In general, the definition worked well and participants' statements often fit within one of the operationalized definitions. There were some aspects, however, that fell outside the definitions, primarily in the dimensions of *acceptability* and *accommodation*. For example, food quality and food taste were significant points of discussion during the focus groups, but neither was included in the original operationalized definition. Based on the data gathered, the researcher recommends the following modifications (modifications are italicized):

**Availability** is defined as “the relationship of the volume and type of existing services (and resources) to the clients’ volume and types of needs” (p. 128). This is divided into two dimensions: 1a) (perceived) supply of food retailers, 2a) (perceived) diversity of food retailers.

**Accessibility** is defined as “the relationship between the location of supply and the location of clients” (p. 128). This is divided into four dimensions: 2a) (perceived) transportation options, 2b) (perceived) distance, 2c) cost of transportation, 2d) perceived convenience of food retailer location.

**Accommodation** is defined as “the relationship between the manner in which the supply resources are organized to accept clients and the clients’ ability to accommodate to these factors and the clients’ perception of their appropriateness” (p. 128). This is divided into six dimensions: 3a) hours of operation of food retailers, 3b) *perceived convenience of*

*eating experience (food retailer organization, length of lines, menu information, etc), 3c) (perceived) forms of payment accepted, 3d) perception of food retailer staff, 3e) perceived service options offered by food retailer (delivery, take/out), 3f) diversity of food options offered by food retailer (vegetarian, healthy, gluten-free, food diversity, low-salt, etc.)*

**Affordability** is defined as “the relationship of prices of services” and goods “to the clients’ income” and “ability to pay” (p. 128). This is divided into three dimensions: 4a) perception of opportunity cost, 4b) “knowledge of prices,” 4c) knowledge of comparative prices.

**Acceptability** is defined as “the relationship of clients’ attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients” (p. 129). This is divided into five dimensions: 5a) perception of location of food retailer, 5b) *perception of other consumers who visit a certain food retailer*, 5c) perception of physical space of a food retailer (cleanliness, presentation, etc), 5d) *perception of atmosphere of a food retailer*, 5e) *perception of food (taste, quality, quantity)*.

Both accommodation and acceptability involve many dimensions, which may be why they accounted for such a large percentage of the content analysis. In contrast, availability has only two dimensions but accounted for the second highest percentage of content analysis. This was partly due to the nature of availability. The two researchers who performed the content analysis discussed whether to count participants’ naming of a food retailer as a unique statement. It was decided that it would be counted (since the naming of a food retailer meant that the participant was aware of its existence, which influenced a participant’s perception of “supply”). This significantly increased the number of unique statements categorized under availability. Another researcher may have chosen to exclude these statements. Either way, the dimensions of affordability and accessibility scored much lower than the other three dimensions, which agrees with Penchansky and Thomas (1981) findings. When measuring access, then, it is more important to focus on acceptability, accommodation, and availability, because these three

dimensions play a more prominent role in consumers' EOB than the dimensions of accessibility and affordability.

The questionnaire that measured consumers' perception of their EOFE is helpful but also limited because it was based on the original definition of access. The questions cover the originally included dimensions, but they do not cover the dimensions that came up as a result of the focus groups—questions concerning atmosphere, food quality, food taste, etc. The results paint a stark picture of consumer satisfaction with their EOFE, with no dimension earning above a 60% satisfaction rate and availability earning the lowest at 30%. The two lowest rated questions concerned perceived availability of healthy food and availability of delivery. The former had a satisfaction rate of only 24.5%. Considering Inglis et al. (2008) finding that perceived access to healthy eating-out options is negatively correlated with probability of consuming fast food, the low satisfaction rate is an important finding in terms of implications for practice. Both these topics were thoroughly discussed in focus groups as well, which strengthens the validity of the finding.

It is important to consider that the food retailer map is only a static representation of Garfield's current EOFE. The perceptions of residents are based in present, past and future. This again emphasizes the importance of material and perception data. A policy-maker may have looked at the original food retailer map and concluded that Garfield consumers' perceptions were unjustified and that they were simply unaware of how many options they had. When factoring in transportation, food preference, affordability and other components that make up access, however, a policy-maker can quantitatively see that those perceptions are based on inequitable realities. The majority of residents felt that 11-20 minutes was a reasonable time frame for getting prepared food. This agrees with the USDA-recommended boundaries of 1 mile

by vehicle and .5 mile by foot for those consumers with access to a personal vehicle and those who lived on or near the bottom of the hill. For all others, the USDA recommended boundaries fall outside consumer perception of reasonable distance. This is due to street conditions, sidewalk conditions, bus and alternative transportation options, inclement weather, safety and topography. Considering that slope affects the perception and reality of walkability, it is unsurprising that Garfield's hills act as barriers to access. Slopes that are perceived as "pleasant" are generally 2% grade or less (Mouzon, 2012). Aiken Ave, which is one of the main thoroughfares in Garfield, is about an 8% grade.

The importance of collecting both material and perception data cannot be overstated, especially in a transforming neighborhood. Along with sociodemographic information, these three pieces of data comprise the "social distance" that is so integral to strong findings in research. An EOFE that looks saturated on paper may be closer to a food desert from the perspective of the consumer. In the fullest terms of accessibility then, what does Garfield's EOFE say about its people? It says that only wealthy people deserve to eat healthy prepared food. And it says that only people with cars and leisure time deserve to eat desirable prepared food and healthy prepared food. Everyone else is stuck.

The Maps Activity also helped shape the "social distance" of Garfield. It was important to discover the invisible walls between The Commons and the rest of Garfield, the reasons for which are found in the "Findings" section. It was just as important, especially considering the action-oriented nature of this project, to learn which streets, bus stops, and areas were popular and which were avoided. To sum up this section on access, a FJM approach to food access needs to use a multi-dimensional definition of access and must utilize both material and perception

data. This is necessary for highlighting the “gap between potential access and realized access,” which “is essential in accurately depicting the food environment” (Caspi et al., 2012, pg. 1185).

The other piece to an FJM approach is food sovereignty, which involves the autonomy and sovereignty of the consumer within the food system and uses a food justice frame that resonates with the community. Kato (2013) argues that a civil rights rhetoric may perhaps be most effective for developing this frame, but he is unsure how that would look. Typically, AFM and FJM define access in terms of “good food,” which often has the connotation of organic and local. This may not correspond to the type of food that is desired by consumers, however. He poses the question:

Food as a resource is distinct from water or air in that its consumption carries cultural identity, which is shaped by structural inequality itself...the food justice frame’s reliance on the civil rights rhetoric poses a limitation, as it is not clear what the movement would be reclaiming—their right to eat *the food they like* or their right to eat *the healthy food*? (p. 388)

The answer is both. Consider Angie’s story. One of many children, Angie grew up in humble circumstances in Hazelwood, a neighborhood of Pittsburgh. She moved to Garfield as a young woman and has been living there for almost 40 years. Her oldest daughter lives in Minnesota, and Angie travels there to visit and help care for her grandbaby two or more times a year. A couple years ago, when Angie was there visiting, she and her daughter went grocery shopping at an upscale store. They were strolling through the aisles when Angie caught a familiar scent. She paused and kept smelling, turning her head this way and that, trying to find the source of the scent. She finally asked her daughter about it. Her daughter did not know but pointed to the section they were near, which was the organic meat section. The scent finally clicked in Angie’s

head—that was how the meat smelled in the mom-and-pop shops around Hazelwood where her family shopped growing up.

This story has powerful implications. Angie grew up poor in a poor area. But even so, the food that was accessible, affordable, acceptable and available to her was organic (or the more familiar term; home-grown). It was not the dichotomous question of healthy vs. desirability that Kato poses; however, it has largely become that, especially in high-density urban areas. Our mainstream food system is driven by a capitalistic economy that rewards the cheap and fast. As a result, often the most affordable food is the least wholesome food. The desirability of fried chicken has not changed, but the affordability of the chicken and the quality of the chicken has. Participants discussed these changes, saying that “back then everything...was good for you...now they’re shooting all them animals up with steroids and stuff. Look at the chicken wings. You ever bite into a chicken wing and notice how the bones is always broken?” This is a food *system* problem. Before, the affordable option was still a “good food” option (as the term is used by AFM and FJM). Today, that is not the case. The researcher shared Angie’s story with the participants at the community meeting, stressing that food access is a justice issue and a rights issue. The participants’ responses indicate that this “justice” frame resonated with them. The civil rights frame is appropriate for FJM.

The desire for healthy food and quality food is there. It was mentioned consistently in every focus group, arose in the majority of informal conversations with Garfield consumers and was a topic discussed during the community meeting. Most participants were very aware of the quality of their food and how the quality of their food impacts their health. In fact, this knowledge drove much of their dissatisfaction. They felt forced to buy food that was bad for their bodies because “healthy” food (ie organic) was perceived as too expensive and was



associated with wealthy Caucasians (which represents a cultural divide). This agrees with research that has found that external factors can misalign food purchasing behavior and food preference (Dammann & Smith, 2009). This is why a food justice frame that uses civil rights rhetoric, draws from consumer perceptions and “that resonates with the local community” is so critical to an effective food movement (Kato, 2013, p. 387). The lack of such a frame contributed heavily to the oft impotent interventions associated with the Alternative Food Movement. AFM focused on consumer responsibility and consumer choice, when in fact, the consumer has not changed so much as the system itself has changed; FJM recognized this. Therefore, the focus of this discussion now turns to this study’s success or failure in the realization and implementation of a food justice frame.

One of the ways to measure the success is to look at the community meeting. Did people come? Who came? What was the participation level? Who vocally participated? Who did not vocally participate? What may be some reasons for this? What were the dynamics between and among participants? What ideas were generated? Which ideas held more clout? Of course, the opportunity to share one’s opinion and be listened to honors consumer autonomy and sovereignty; it is one of the most basic forms of empowerment. There were many other factors, however, that contributed to creating a food justice frame besides this. The diversity of the thirty participants was reflective of the diversity of the neighborhood—in terms of age, career, tenure in Garfield, household type, race, education, etc. The variety of “marketing” techniques is largely responsible for this. The researcher used social media, flyer distribution, canvassing, personal invitations and communal invitations to make community members aware of the meeting. As a result, it was not a community meeting composed of only one group of a community; rather there was fair representation from multiple groups and subgroups. This, in

itself, is indicative of a just approach because it means that different groups shared similar dissatisfaction with their neighborhood's EOFÉ, were aware of the meeting, felt welcome to come to the meeting and felt comfortable participating and sharing their personal opinions among a diverse set of participants.

Diversity of participants also meant that the ideas generated were not only relevant to one group or subgroup. Further, because multiple groups were represented, one could quickly see which ideas were relevant to multiple groups and which were not based on participant response. The presence of multiple groups also presented the opportunity to voice the clashing desires. At one point during the meeting, a younger woman talked about her desire to put in a venue that captures the food/art/community trifecta that Washington, DC's famous Bus Boys and Poets models. While sharing about this idea, the young woman mentioned wine, and an older female participant reacted negatively to that. The two participants went back and forth a few times, both giving reasons for their opinions. After a couple minutes, because of time constraints, the facilitator jumped in to mediate and table the issue. The fact that both participants felt comfortable disagreeing with each other and talking through their reasons with each other is another indication that participants felt autonomous and that they had the right to take ownership over their food environment. The varying desires of certain subgroups were seen in focus groups as well. For example, the younger adults were much more concerned about convenience and affordability than the older adults, who were more focused on a family-friendly atmosphere and food quality.

Another indication that this study was successful in creating a food justice frame is in relation to the discussion and interventions proposed during the meeting. Typically, food justice frames involve one of two constructs: 1) social justice rhetoric focused on rights and

entitlements; 2) the development of culturally-appropriate local, community-driven solutions that draw from the assets of the community (Sbicca, 2012). Angie's story is a testament to the lost rights of a disenfranchised community to healthy, desirable food. This reflects the first construct. The community-generated solutions reflect the second. The ideas generated fit within the existing framework of the neighborhood and were both accessible and desirable. Among the popular ideas were a breakfast place, a food truck, a sit-down family-friendly restaurant and a "hot bar" buffet. Another idea was a community commercial kitchen. A handful of participants shared their history with independent entrepreneurship, primarily preparing food in their homes and either selling the food from their homes or through another food retailer. With tighter food safety restrictions, that practice became unfeasible due to lack of access to a commercial kitchen. Providing a community commercial kitchen is an intervention that honors the autonomy and sovereignty of the consumer while improving access to local food, which directly reflects FJM.

FJM also "prioritizes carving out creative spaces" that give consumers the freedom and safety to generate solutions that are a good fit (Sbicca, 2012, p. 464). The community meeting clearly provided this space for consumers. Additionally, Kato (2013) says that a food justice frame is "meaningful and effective" when it is "grounded in the local historical and spatial contexts" (p. 388). This was true of the food justice frame that was collaboratively developed throughout the research study and ripened significantly at the community meeting.

Also important to consider are power dynamics. There are different forms of power and different sources of power. Ideally, a food justice frame allows room for all types of power and provides a space for those types of power to come together and complement each other.

Intentional stakeholders were invited alongside residents because the researcher wanted multiple forms of capital and assets to be present during the discussion. These forms of capital are

couched in historical, cultural, and social contexts, existing within living power dynamics and not static transactional exchanges. For example, many of the older African American women drew their power from community ties and knowledge of the neighborhood's history. The newer residents to Garfield did not have these sources of power. The participants who had culinary or entrepreneurial experience drew their power from that experiential knowledge. Others drew power from their knowledge of available resources, others from political connections or status in the community, others from exposure through traveling.

Part of the process of cultivating a food justice frame was trying to put all forms of power on an equal footing. This is especially critical when participants include members of minority groups or at-risk communities. Generally, residents belonging to these groups lack the obvious forms of power, such as financial or political. Since it is the "obvious" forms that are usually recognized and catered to, consumers with alternative forms are disenfranchised. This must be taken into account when promoting equitable food environments. In relation to this study, there were intentional activities that helped create an atmosphere that allowed this equalizing of powers. Some examples of those activities included: inviting stakeholders into the community as opposed to going to them, choosing a meeting location that was sensitive to the racial relations in Garfield (Alkon & Norggard, 2009), using a participatory approach to the meeting facilitation and taking time to have a long-term resident share about Garfield's history. In fact, the researcher did not anticipate the importance of the latter. Sharing about the history and evolution of Garfield's EOFE was included in the agenda to provide context for the meeting so that new comers and old comers alike were starting from a similar page. It also was included because of the importance FJM places on the history of a community, especially when that local community has a dynamic "intersection of race, class, and cultural capital" (Kato, 2013, p. 386). The

researcher did not anticipate the empowerment that would occur during this agenda item. As the speaker shared, older participants called out in remembrance or added additional information. The historical knowledge gave them authority at the onset of the meeting and the weight of that authority was evident throughout the meeting. In transforming communities, the incorporation of social and cultural history can be a powerful tool for mobilization and empowerment.

Another piece that speaks to the successful promotion of food sovereignty is the task force that developed at the end of the community meeting. This volunteer task force is composed of residents and stakeholders and various forms of power are represented. The task force is working to implement the interventions generated through the community meeting and its formation evidences the ownership that consumers feel towards their food environment, which is an essential piece to food sovereignty. Consumers decided to “turn fights *against*” food system “*bads* into fights *for*” food system “*goods*” (Sbicca, 2012, p. 459).

To conclude the discussion section, the food retailer analysis, maps activity, focus groups and questionnaires all contributed to defining “social distance” in Garfield’s EOFE. The focus groups and questionnaires agreed with Penchansky & Thomas (1981) finding that there are five general dimensions of access and that affordability and accessibility are the least indicative of EOB. The focus groups were also integral to the additional modification of the Penchansky & Thomas (1981) five-dimensional definition of access used for this study. This modified definition should be further tested for validity. The collection and analysis of this data satisfied the *food access* component of an FJM approach.

The focus groups, maps activity, and community meeting were the primary activities to promote the *food sovereignty* component of an FJM approach. These activities put authority and power in the hands of consumers. The focus groups and community meeting also honored the

social history of the community, along with its evolution and perceived future direction. Implicit in that honoring was the space and time for consumers to share honestly their feelings and opinions. The community meeting further promoted food sovereignty through its acknowledgement of and affirmation of various forms of power. Finally, the community meeting cultivated ownership by inviting participants to join a task force that would work to implement the intervention(s) desired by the community.

### **Strengths and Limitations**

One strength of this study is its use of mixed methods and use of both perception and material data, the benefits of which were outlined earlier in the methods section. The mixed-methods approach also strengthened the food justice frame that is integral to a FJM approach. To the researcher's knowledge, this is one of the only pieces of research that designed and implemented its study based on the principles of developing a food justice frame. In this way, it was a case study on the realization, application and utility of a food justice frame for the promotion of equitable food environments. The chosen methods were also largely informed by theory and literature, which contribute to their reliability and validity.

There does not currently exist a test/retest measurement that adequately and appropriately measures the information in which the researcher was interested. Many instruments exist that measure access to produce and there are a few instruments that exist to measure consumer perception of access or consumer perception of the eating environment. In putting together the questionnaires for this study, the researcher drew from these measurements, especially in the questionnaire measuring consumer perceptions. The measurements that informed this study are: Penchansky & Thomas (1981) measurement of client satisfaction in terms of access; Veur et al. (2013) measurement of corner store and commuting patterns among students; Inglis et al. (2008)

measurement of perceptions of the food environment. To the extent that the researcher drew from existing tested measurement tools, there is reliability; however, the researcher had to modify these measurements to be relevant to her study. The modified measurements were piloted with small focus groups composed of Garfield residents. Though their feedback contributed to the reliability and validity of the questionnaires, the questionnaires should be further tested. Similarly, the revised Penchansky & Thomas (1981) five-dimensional definition of access needs to be tested and retested.

Time and resources were significant limitations in this study. The most effective community mobilization campaigns require ample time and a core group of mobilizers. Due to time and resource constraints, the researcher was not able to operate on a large scale. The researcher was able, however, to canvass a respectable area of the neighborhood and reach a diverse cross section of the neighborhood's population as represented by the community action meeting participants. Therefore, the researcher is confident that the interventions proposed represent the opinions of the majority of the community. Further, mobilization is about getting the ball rolling and getting the ball rolling in the right direction. This study satisfied both of those conditions.

This study gathered a large breadth of data. This was necessary to create the food justice frame. The level of analysis was sufficient and appropriate for the action-oriented goal of the study and will contribute to the food literature base. With more resources and time, however, the researcher could have performed deeper levels of analyses that could have contributed in a more theoretical way.

In any study, there is some potential for ethical issues to arise. Though food environments are generally not ethically-charged topics, the fact that this study used a "food

justice approach” meant that issues of social justice and inequity were addressed. This had the potential of deepening divisions that already existed in the community. Cognizant of this, the researcher attempted to be fair-minded and objective in her interactions and analyses. The researcher was also intentional about using “neutral” places (though no space is truly neutral) to conduct focus groups and the community meeting. She was also intentional about not appearing biased in her selection of those invited to the meeting. Additionally, the use of a third-party facilitator for the community meeting, who is respected in the community, helped mitigate the potential of highlighting and deepening divisions. Based on notes, observations, and feedback from participants, the researcher thinks that this study process was successful in its intention to be sensitive to the diversity of the Garfield neighborhood while also being inclusive and objective. Further, in a small way, the researcher thinks that this process helped bridge some of the existing divides.

### **Implications for research and practice**

There are multiple implications of this study for research and practice. The methodological process of this study effectively realized and implemented a food justice frame within a FJM approach. Current literature reflects the strengths of using a FJM approach in promoting equitable food environments; therefore, future studies can incorporate some of this study’s methods. The FJM approach is limited by a lack of universal definitions in food literature (food access, food retailer, food sovereignty). The absence of these definitions acts as a barrier to comparisons between and among studies, which limits clear and consistent findings. This in turn obstructs the appropriateness and efficacy of macro-level interventions and policy.

Both in this study and in other food literature, participants mention that they will go out of their way to purchase quality food; however, the same is never said for low quality food. In



fact, research shows that purchase rates of low-quality food (such as fast food items and convenience store foods) decrease when perception of time to those food retailers increase (Hearst, Pasch, & Laska, 2010). Echoing other studies then, it is recommended that low-quality food be made less accessible than high-quality food through policy and/or urban planning.

It is also recommended that a policy be implemented that incentivizes urban communities to maintain a certain non fast restaurant-to-person ratio according to the median income of those communities. For example, if a neighborhood's median income hovers around 150% of the poverty line, then a certain number of non-fast food restaurants offering prepared food for an affordable price (such as \$10 or less) per number of residents should be encouraged. This will help mitigate consumer dissatisfaction with the EOFE. This will also help promote local entrepreneurship and economic vitality.

Finally, it is recommended that Pittsburgh's Food Policy Council look to Baltimore's example and develop its own food access definitions. Considering the unique composition and challenging topography of Pittsburgh, the national USDA standards fall short of the real needs of Pittsburgh's residents. Until Pittsburgh develops its own local definitions, policy makers and community leaders will be unable to measure accurately the extent of inequities in the local food environment. Policies and interventions will continue to be ineffective until we arrive at a real understanding of the shortages and strengths of Pittsburgh's food system.

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## Appendix A

### Perception Survey:

*I want to know about the places where you can buy prepared food in your neighborhood. Remember that **prepared food is food that is ready to eat, like a restaurant meal or a snack from a corner store or a pizza delivered to your home.** For each of these statements, you can choose how much you agree or don't agree by **drawing a circle around the answer that best describes how you feel about the statement.** Your answers will help form a picture of how residents in your neighborhood feel about the food choices that they have.*

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|--|--|
| 1. There are many places to get high quality prepared food in my neighborhood.                             | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 2. There are many places to get healthy prepared food in my neighborhood.                                  | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 3. There are many places to get the prepared food that I and/or my family like in my neighborhood.         | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 4. There are many places that deliver food that I and/or my family like to eat.                            | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 5. There is more than one kind of transportation that can take me to the places where I buy prepared food. | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |

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|---|--|
| 6. It is easy and convenient to get to the places where I like to buy prepared food.                                | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 7. It is easy and convenient to get to a place that sells high-quality prepared food.                               | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 8. There are times when I don't buy the prepared food that I want because I can't find transportation to get there. | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 9. It is easy and convenient to get a place that sells healthy prepared food.                                       | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 10. Buying the prepared food that I like is affordable.   | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
-

11. I cannot afford to buy high-quality  
prepared food.

I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree

12. There are many places that sell delicious  
prepared food that I can afford.

I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree

13. The places that sell healthy prepared  
food are too expensive for me.

I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree

14. It's just too much trouble to buy the  
prepared food that I want.

I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree

15. I just buy prepared food from whatever  
is closest because it's easier.

I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree

- |  |  |
|--|--|
| 16. My friends buy prepared food from the same places where I buy prepared food. | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 17. I like the people that I run into at the places where I buy prepared food.   | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 18. The places where I buy prepared food are in a neighborhood that I like.      | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 19. The places where I buy prepared food are clean and look nice.                | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| 20. The places where I buy prepared food have workers that are professional.     | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |



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| 21. The places where I buy prepared food accept the form of payment that is the most convenient for me.        | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| <hr/>  |  |
| 22. There are places I want to go to buy prepared food, but the hours that they're open don't fit my schedule. | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| <hr/>  |  |
| 23. The places where I buy prepared food have workers that are friendly.                                       | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| <hr/>  |  |
| 24. There are long lines at the places where I buy prepared food.  | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| <hr/>  |  |
| 25. There are many places to get the prepared food that I and/or my family like in my neighborhood.            | I definitely agree---I agree a little bit---I don't know---I don't really agree---I definitely don't agree |
| <hr/>  |  |

Thank you so much for your time! We really appreciate your help.

## Appendix B

### Transportation

1. What is your usual mode of transportation? (please circle one only)

Personal Vehicle	Carpool with another person	Bus	Taxi
Jitney	Walking	Bike	Other_____

2. Do you have access to other modes of transportation? If yes, which ones? (Please circle all that apply)

Personal Vehicle	Carpool with another person	Bus	Taxi
Jitney	Walking	Bike	Other_____

3. What is the distance it takes you to travel to buy prepared food (not groceries)? (please circle one)

5 min or less	6-10 min	11-15 min	16-20 min
21-25 min	25 min or more		

4. What is a reasonable time to travel to buy prepared food (not groceries)? (please circle one)

5 min or less	6-10 min	11-15 min	16-20 min
21-25 min	25 min or more		

5. Are there streets that you don't like to use in your neighborhood? If yes, then why? (Please circle all that apply)

No sidewalks or poor sidewalks	Hill
Traffic	Not safe during the day
Bad road conditions	Not safe during the night
No street lighting or poor street lighting	The other people walking on the street are not friendly
The other people living in the houses that line the street are unfriendly	Other_____

## Appendix C

### Eating-out Behavior

1. In a normal week, how many times do you usually eat outside your home? (Please circle one)

Every meal	Twice a day	Once a day	Couple times a week
Once a week	Rarely	Never	

2. In a normal week, how many times do you eat delivery or take-out food inside your home? (Please circle one)

Every meal	Twice a day	Once a day	Couple times a week
Once a week	Rarely	Never	

3. In the past two weeks, about how many times did you purchase prepared food from or ate at a: (please write in the number of times for each place)

a. Gas Station	c. Convenience Store	e. Fast Food Place	g. Community Center
b. Coffee Shop	d. Sit-down restaurant	f. Grocery Store	h. Church i. Other

4. In the past two weeks, where did you eat prepared food at? (please circle every place where you ate prepared food)

a. Gas Station	d. Church	g. Fast Food	j. Community Center
b. Relative/friends	e. Sit-down restaurant	h. Grocery Store	k. Convenience Store
c. Coffee Shop	f. Soup Kitchen	i. Shelter	l. Other

5. Please circle the **three places** where you eat prepared food the most.

a. Gas Station	d. Church	g. Fast Food	j. Community Center
b. Relative/friends	e. Sit-down restaurant	h. Grocery Store	k. Convenience Store
c. Coffee Shop	f. Soup Kitchen	i. Shelter	l. Other

4. On average, how much do you spend when you eat out? (please circle one)

Less than \$2	\$2-\$3.99	\$4-\$5.99	\$6-\$7.99	\$8-\$9.99	\$10 or more
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